A POLICY FOR THE STIMULATED DEVELOPMENT OF THE TRANSKEI

Thesis Submission for MURP.

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SYNOPSIS

The aim of this study was to investigate the present development of the Transkei and to propose a policy for its future development, bearing in mind the potential of the country and its people.

The Transkei, an independent state, was looked at in relation to the developed areas of Southern Africa, and found to be geographically isolated from such economically developed areas and major communication links. Hence, stimulated development is necessary.

Physiographically the Transkei can be divided into three regions. Practically speaking two distinct regions can be distinguished, viz. the coastal sub-tropical region and the inland grass regions suitable for mixed farming.

The natural resources which have the best development potential are forests, builders' marble, base minerals and water resources in general. Certain areas of the Transkei were found to be ideally suitable for the production of cash crops such as coffee, cotton, sugar, tea and fibre. The rest of the Transkei is suitable for mixed farming. There is thus a possibility of processing various products, i.e. an industrial potential.

The problem in the Transkei is defined as basically a social problem; the attitude of the people does not create an environment conducive to economic development. Productivity per morgen and per person is low. With 98% of the population living in the non-urban areas and 85% of the economically active population being engaged in agriculture there is over-crowding on the land and per capita income is low. The standard of education of the people is low and

there are virtually no employment opportunities other than in subsistence farming.

The broad goals must thus be to increase per capita income, to raise the standard of living and to provide alternate forms of employment.

By treating the Transkei partly as an independent state and partly as a region of South Africa, situations particularly favourable to development can be created.

As a basis to economic development a breakthrough in agriculture is essential, i.e. productivity must be increased. To allow scope for this it was found that it was necessary to make provision for full-time farmers and for those who would farm part of the time and engage in wage employment the rest of the time. Thus two distinct farm settlement programs are proposed.

To provide the necessary alternate forms of employment within the Transkei, it is felt that urban areas based on industry are essential. Such industries could depend on both the Transkei and the Republic of South Africa for supply and market areas. Until such time as the Transkei produces the necessary requisites, much of the initial capital, skills and enterprise will have to come from foreign sources, in particular the Republic of South Africa.

INTRODUCTION

Traditional land settlement patterns and farming technology in the Transkei are wasteful and uneconomic. A possible solution to this inefficiency lies in firstly the development of economic farming and secondly the phasing of the urbanisation of the Bantu, taking into account potential changes of related economic location patterns.

For the purpose of this study the Transkei (vide Map 2) is being considered as an independent state framing its own internal policy and external policy as regards neighbouring states. This is particulary pertinent as regards Chapter 11. The Republic of South Africa is looked upon as the ex-colonial power which has agreed to provide certain aid and also as a neighbouring economically developed state which perceives that it is to its own advantage to developed neighbouring underdeveloped states (as a means of creating expanded markets and for its own security).

No comparative analysis is being attempted as to why the Transkei should be developed in preference to any other region in South Africa.

The procedure to be followed in this study is briefly this:

> The geographic and economic setting of the Transkei vis-a-vis its surrounding areas will be examined;

The physical potential, human resources and infrastructure of the Transkei will be examined;

Interrelationships within and between the above will be analysed;

An attempt at defining present and future requirements will be made; and

Alternate means of achieving the future requirements will be assessed, to arrive at a policy statement.

CONTENTS

CHAPTER 1

GEOGRAPHIC SETTING

1.01 The Transkei in relation to Southern Africa.

As indicated on Map 1, the Transkei is situate along the eastern seaboard of Southern Africa. It is sandwiched between the Cape Province, Lesotho, Natal and the Indian Ocean. By referring to Map 2 it can be seen that the district of Umzimkulu is separated from the other 25 districts by portion of the Cape Province, viz. the district of Mt. Currie and portion of the district of Matatiele. The Transkei is bounded by the Indwe and Kei rivers on the west and south-west and by the Umzimkulu, Umtamvuna and other rivers along the Natal border in the north-east; it is bounded by the Great Escarpment (Drakensberg) on the Lesotho frontier and the Indian Ocean along the south-eastern boundary.

1.02 Economically developed areas in South Africa.

The real impact of the world economy upon Southern Africa came only with the discovery of diamonds (1867) at Kimberley and gold (1884) at Johannesburg. Urban centres now sprang up in the very centre of the sub-continent. Railways were pushed forward from the ports to Kimberley and then Johannesburg. To a large extent we are still left with this pattern: the Witwatersrand complex (and the developing Free State Gold Fields) in the inland and the port cities of Cape Town, Port Elizabeth, East London and Durban - and Lourenco Marques - with the rail communications connecting them. (The 1960 Population Census[1] shows that all urban areas with a total population of more than 100,000 persons are either in the Pretoria - Witwatersrand complex or on one of the main rail links, or at the coast).

1.03 The importance of rail links.

These rail links have played an important secondary role in development. There are few large towns between the Southern Transvaal and the coast which are not within easy reach of these major lines of communication. Likewise, there are few instances of intensively exploited natural resources that are not within easy reach of one or another of the main rail traffic arteries. In an area that is situated at a distance from the routeways and is thus cut off from the major centres of population, industry and commerce have been virtually condemned to isolation and neglect.

1.04 The Transkei's isolation.

From an examination of Map 1 it is obvious that the Transkei readily qualifies as one of these less fortunate areas.

CHAPTER 2

GEOGRAPHY AND NATURAL RESOURCES OF THE TRANSKEI

2.01 Topography.

Topographically the landscape is very broken, accentuated by rivers which have cut deeply into sedimentary deposits. Three-quarters of the country is mountainous or very hilly and only 11% can be classed as gently rolling or flat. See Map 3.

2.02 Regions[1].

Physiographically the Transkei can be divided into three main terraces separated by escarpments, viz. the coastal region, the inland step or thornveld region, and the inland highveld east of the Drakensberg.

2.021 The Coastal Region.

This region can be said to have a sub-tropical climate; it has a temperate moist climate with rainfall throughout the year. The region is frost-free and has an annual average rainfall of between 40 and 50 inches. The mean temperature for January is between 70 and 75 degrees Fahrenheit and that of July about 60°F. The natural vegetation is sub-tropical bush and forest near the coast with sour grass further inland. The valleys of the larger rivers can be classified as water-abundant areas. (See Map 4). Height above sea level rises from sea level along the coast to approximately 1,500 feet at the bottom of the first escarpment.

2.022 The Thornveld Region.

This region also has a temperate moist climate, but is not sub-tropical; the winters are far drier than the

summers and there is a frost period of from 1 month (along the top of the first escarpment) to 3 months a year along the second escarpment. The annual average rainfall is about 35 inches a year. The mean temperature for January is 70°F. and that for July 55°F. The natural vegetation is tall grass. Parts of the region are water-abundant. Height above sea-level ranges from 2,000 feet to about 4,000 feet.

2.023 The Inland Highveld.

This region is basically a continuation of the Thornveld region except that Mt. Fletcher and the northern half of Umzimkulu have dry winters. The frost period is longer (4 to 5 months); the mean temperature is lower (65°F. in January and 45°F. to 50°F. in July); the rainfall is higher (35 to 40 inches per annum); and the whole region is water-abundant. The natural vegetation is like that of the Thornveld Region - tall grass - except for the areas bordering on the Great Escarpment where alpine conditions (short grass) prevail. Height above sea level rises from 4,500 feet to above 6,000 feet.

The coastal region thus seems to offer the highest agricultural potential unless irrigation schemes are resorted to in the other regions. The climate of the whole Transkei must be regarded as one of the most pleasant and most productive climates in Southern Africa.

2.03 Forests and Plantations[2].

2.031 Forests.

Natural forests and plantations are, from the nature of the climate and natural vegetation, liable to play a large role in the natural potential of the Transkei. The major forest and plantation areas are shown on Map 5. The

area of indigenous forests totals approximately 102,500 morgen. Two types may be distinguished, viz. the coastal forests and the mountain forests. With the exception of three forests, the coastal forests are not nearly as valuable as those on the mountains. The coastal forests are generally of the scrubby type, but do contain large quantities of sneezewood and boxwood of considerable value. The mountain forests occur in patches along the southern and eastern facing slopes of the Great Escarpment from Cala in the south to the Natal border. These forests contain magnificient yellow-woods, stinkwoods and other species of high economic value.

2.032 Plantations.

Large-scale afforestation schemes were initiated about 10 years ago at Glengarry in the Umzimkulu district and at Matiwane in the Umtata - Tsolo district. Subsequently plantations have been developed at Sneezewood in the Umzimkulu district and at Baziya in the Umtata district. Total afforestation in the various plantation areas now stands at about 54,000 morgen. It is estimated that eventually the area of high-grade indigenous forests and plantations will total about 170,000 morgen, or roughly 4% of the total area of the Transkei. At present the total area of the Transkeian Forest Reserves is approximately 233,500 morgen.

2.04 Distribution of Minerals.

As shown on Map 5 there are various mineral deposits in the Transkei.

2.041 Coal.

In the early part of this century coal was mined at Mt. Fletcher. The coal was, however, of a very low grade

with a high ash content. The coal mine was located in the belt of coal stretching from Cala, through Matatiele and joining up with the coal fields of Natal. The coal is of such a low quality that its only practical use appears to be that of a substitute for wood for heating in private homes.

2.042 Builders' marble.

Travertine, which is a limestone that can be polished and thus is regarded as a marble by builders, is found in large quantities 18 miles upstream from Port St. Johns The deposits are rather inaccessible as far as road transport is concerned with the result that there is at present no large-scale exploitation.

2.043 Titanium and Zirconium.

These minerals are used in the manufacture of paints and dyes. These minerals have been located near Port St. Johns and at the mouth of the Umtata River. The extent and grade of these deposits is unknown.

2.044 Copper and Nickel.

These minerals are mined near Mt. Ayliff. Of this area the Tomlinson Report[3] says: "The Transkei, however, contains in the northern areas of Mt. Ayliff and Tabankulu huge deposits of base metals (nickel, copper and cobalt) which, if opened up for mining and not for speculative purposes may develop into a mining industry of national importance". Of the mine at Mt. Ayliff it says[4]: "From the geological evidence it would seem as if present workings have, so to speak, only just scratched the outer and upper edge of the mineralised rock, and that there is every reason to believe that a considerable improvement in the grade of the ore may

be expected to occur with depth".

It would thus appear that the base metal and the limestone deposits offer scope for exploitation.

2.05 Areas of great natural beauty.

Most of the coast-line offers a high potential for recreation areas. The sub-tropical forests and rolling hills offer scenes of great natural beauty. The coast is in general fairly rocky, but the rocky reefs are intermittently broken by well-protected beaches. Small holiday resorts are already established along the coast - see Map 5. Lack of roads makes these resorts rather inaccessible at present.

CHAPTER 3

WATER RESOURCES

3.01 In general the Transkei has fairly good water resources. Only 8% of its total area has less than 25 inches of rain per annum and 48% has more than 35 inches per annum - see Map 6.

3.02 Rivers[1].

The Transkei is traversed, from north-west to south-east, by 6 major rivers, viz. the Kei, the Bashee, the Umtata, the Umzimvubu and its tributaries, the Umtamvuna and the Umzimkulu - see Map 6. All these rivers flow all year round and even in July, 1968, during the worst drought in 70 years, there was still water flowing in these rivers. There are also numerous small rivers, most of which have a constant flow. The water in these rivers is not always easily obtainable for irrigation and domestic purposes as the rivers have cut very deeply and steeply into the original sedimentary deposits. Map 4 shows water-abundant areas in the Transkei, i.e. areas with permanent water from adequate rainfall, rivers and streams.

3.03 Large-scale irrigation schemes.

The deep and steep river valleys mostly preclude irrigation along the banks of the rivers without reverting to large-scale schemes. Such a scheme, the Qamata Scheme, has been initiated on the St. Marks Flats. Here the Lubisi Dam, recently completed, in the Indwe River will place about 4,500 morgen of fertile land under irrigation. Further large-scale schemes are possible as shown on Map 6. Officials of the Transkei Department of Agriculture estimate that at least 20,000 morgen of land can be placed under irrigation. On

Map 6 the total extent of irrigable land is 200,000 morgen; but as only ± 20% of the land is arable in the Transkei (see Map 8) this figure reduces to 40,000 morgen. Irrigation areas were obtained by taking into account all land lower than the suggested dam sites; where valleys narrowed to gorges the area was terminated. This method was obviously rather crude and a thorough investigation of potential irrigation schemes would surely pay dividends. In the long run it is of course engineeringly possible to place all arable land in the water-abundant areas under irrigation. The economics of such schemes will of course be a study on its own.

3.04 Hydro-electric potential.

There are various sites where the generation of hydro-electricity would be a feasible proposition. These positions are marked on Maps 6 and 7. The most promising sites are at the waterfalls in the Tina and Tsitsa rivers and at the Colley Wobbles in the Bashee River near Idutywa. The Tina Falls are ± 250 feet high and the Tsitsa Falls ± 520 feet high. At the Colley Wobbles the Bashee River makes a series of S-bends; a short canal would be required here to obtain an artificial waterfall. These sites warrant a thorough investigation.

CHAPTER 4

FARMING POTENTIAL

4.01 Crop Production.

4.011 Only 23% of the Transkei is arable land. (See Map 8). Soil fertility varies from one district to another with Lusikisiki, Flagstaff and Bizana considered as the most fertile areas. In the past soil erosion threatened to remove most of the top-soil. However, agricultural officers in the Transkei feel that the land can be rehabilitated and stabilised as most of the top soil is deep enough to withstand a certain amount of erosion. At present extensive areas have been rehabilitated and stabilised and the program is continuing.

4.012 In 1955 the Tomlinson Report[1] appeared to pin its hopes on a continuation of the existing pattern of mixed farming with maize and wheat as the cultivable crops. It also pointed out that the coastal region was suitable for sub-tropical fruit (bananas, guavas, pineapples etc.) and sugar cane between Port St. Johns and the Umtamvuna River. A large portion of the Transkei could also be placed under Phormium Tenax (New Zealand Hemp). Subsequently experiments at various experimental farms have shown that cotton thrives in the St. Marks Flats irrigation area and near Port St. Johns in the Umngazi Valley (the site of a future irrigation scheme); coffee plantings have been successful near Lusikisiki and especially in the Umngazi Valley and it is estimated that coffee should thrive along the higher reaches of the whole coastal region; experiments with tea planting are well under way at Lambasi near Lusikisiki and there are 3,000 morgen in this area which can be put under tea. Maize is the traditional staple crop in the Transkei and is planted everywhere. Millet would appear to thrive better than maize in some areas,

though.

4.013 Until such time as experiments have been completed it is impossible to estimate how much land can be placed under what crops and what production can be obtained. It is however estimated that between 8 and 10 bags of maize can be reaped annually from the average morgen of dry-land; tea production should run at 400 lbs. of processed tea per morgen, cotton at 2 tons per morgen and fibre (phormium tenax) at between 1½ and 2 tons per morgen - all per year. On irrigation schemes up to 90 bags of maize per morgen have been reaped. Map 9 is a tentative diagrammatic estimate.

4.02 Pastoral farming.

4.021 The whole of the Transkei is predominantly a mixed farming area[2]. Cattle and sheep are grazed everywhere and maize is grown everywhere. Any suggestion of setting aside areas as exclusive stock farming areas is not likely to pay dividends due to the small percentage of arable land. Map 10 does, however, indicate two areas where stock farming could predominate. The area marked as "exclusively stock farming" has an exceedingly low percentage of arable land and is ideal for sheep farming. The "predominantly stock farming" area is best suited for cattle, but sheep and goats should also thrive here.

4.022 The maximum capacity of the Transkei as regards grazing stock seems to be in the vicinity of 2 million large stock units (1 bovine or 1 equine or 6 sheep or 6 goats equals 1 L.S.U.) as the number has remained static around this figure since 1953. In 1955 the Tomlinson Commission[3] estimated that the optimum carrying capacity at that time was only 1.2 million large stock units. However, with rehabilitation of

grazing areas it would appear that the carrying capacity has been increased. At present it is not known what the carrying capacity of grazing plus mineral feeding is. As reflected in table 12 there has been a tendency to reduce the number of cattle in favour of sheep and goats over the past few years. The "mix", as regards stock, in any particular area will obviously depend on climate and the type of grass. The Tomlinson Commission[4] recommended that the ratio of large stock to sheep to goats should be 6:5:10 in the coastal region, 8:4:26 in the southern thornveld region, 6:10:10 over most of the remaining Transkei except in the sheep farming areas where the suggested ratios were 6:13:7 and 6:24:6 - see Map 11.

CHAPTER 5.

THE TRADITIONAL WAY OF LIFE

5.01 Some attempt will be made to sketch briefly the tribal life in Pondoland, i.e. the districts of Bizana, Flagstaff, Tabankulu, Lusikisiki, Libode, Ngqeleni and Port St. Johns, as it was in the 1930s. Reference has been made to Monica Hunter's book, Reaction to Conquest[1].

5.02 The Pondo live in groups of huts, known as umzi (plural imizi), fifty yards to a mile apart. Members of the imizi in a small area usually recognise one member as a petty headman; people in a district recognise a chief; and a number of districts make up a tribe, controlled by a paramount chief. As a son does not necessarily build his umzi near that of his father, clans do not coincide with territorial groups. Clans are exogamous and patrilineal.

5.03 All the members of an umzi eat, play and work together, although each hut has its own property in cattle and the right to till certain fields.

5.04 Before contact with Europeans the Pondo kept cattle and goats; now they have added horses, sheep, pigs, donkeys, mules and poultry. At night stock is enclosed in circular kraals, built within the semi-circle of huts of the umzi. Each morning cattle are taken to the best pasturage available within the area in which the owner has grazing rights; in summer cattle are watched in case they stray into cultivated land. After the harvest they are driven into the fields to feed on the maize stalks. The care of all cattle, goats, horses and sheep is the work of men as the ritual impurity of women is regarded as dangerous to all stock except pigs and poultry. Cows are thus also milked by the men.

5.05 "Cattle ..... are not valued economically

according to their points. In ikhazi (cattle given to a bride's group) a full-grown beast is a beast, and cannot count for more or less, no matter what its quality. .....Wealth is reckoned by quantity, not by quality"[2]. Cattle are important not only as wealth, but also as a means of obtaining a wife and as a means of keeping on good terms with ancestral spirits through ritual killing; they also act as a status symbol.

5.06 Maize is the staple crop. Cultivation implements are now ox-drawn ploughs of European manufacture. Formerly planting was done by men and women using hand hoes, but the taboo on women working with cattle has prevented them from assisting when ploughs are used; ploughing is thus now the work of the young men and boys of the umzi. "Usually the fields of an umzi are worked together, the men of the umzi ploughing each woman's field in turn, and the women weeding each in turn. Two or three imizi may also club together to plough each other's fields, and work parties are made. ..... The first fields are usually weeded by the owner or by the umzi group, but as the season gets on and it is difficult to cope with the crop of weeds, amalima (work-parties) are extensively made. The owner of the field provides beer or meat"[3].

5.07 For about 4 months (from December onwards) green mealies are picked daily. Harvest of dry maize for storage usually begins in May or June. "Reaping is usually done by the women and older men of one umzi alone, although, if an umzi is small, a woman may combine with a neighbour, helping her to reap and being helped in turn, and occasionally rich people make a work party to reap"[4]. The grain is eventually stored in grain-pits dug by the men. "..... nowadays when the land is ploughed and the grain is brought back from the fields in sledges, it is usual for two or three imizi to com-

bine for ploughing and cartage, each supplying part of the necessary tackle or team"[5]. The fields of each contributor are ploughed in turn.

5.08 Formerly each umzi built its own huts, but since the introduction of sod huts their is a tendency towards specialisation, and an expert is often hired. With the introduction of pitched roofs thatching has also become a specialist's work.

5.09 A brief review of Philip Mayer's findings[6] are pertinent. For several generations the whole Xhosa-speaking population of the Ciskei and Transkei has been divided between two opposed cultural camps - between Red people and School people. In the Transkei about $\frac{1}{3}$ are Red. The Red people are the traditionalist Xhosa, the conservatives. They are those who have been looking askance at White people and their ways in every successive generation since the mid 19th Century. The School Xhosa are those who have looked and accepted - basically products of the mission and school. When seeking employment in the urban centres these School Xhosa are more likely to become immigrants - given the chance - than migrants. The majority of the Red Xhosa, however, look upon the country-side as "good", and the towns and cities as "bad". Tribal ties are stronger. They do not value the distinctive institutions of the real towns-people. Instead they attach themselves to their own particular cultural minority, and re-create as far as possible the moral and cultural atmosphere of their old (pre-urban) homes. Many peasant migrants become more strongly country-rooted as they approach middle or old age. The Red Xhosa measures his wealth in cattle - bought from money earned as a migrant labour - and cattle belong in the country-side.

CHAPTER 6

POPULATION

6.01 Size and Growth of the Population.

6.011 Past Growth.

Given the prevailing pattern of land use, the Transkei is unable to sustain a much larger population than at present. As table 1 shows, the population enumerated in 1951 was practically the same as in 1946, and by 1960 it had grown by less than 13% over the preceding 14 years. Apart from temporary labour migration (to be discussed under 6.06) large numbers of Transkeian Bantu have left the territory to take up employment on a continuous basis in the Republic of South Africa. Assuming the population census figures to be correct, and applying a natural growth rate of 2.1% per annum, it appears that approximately 135,000 males and 143,000 females have been lost to the Transkei between 1946 and 1960. These "long-term migrants" are, however, still officially recognised as Transkeian citizens. It has thus been estimated from electoral records that about 118,000 Transkeian citizens are in continuous employment in the Republic of South Africa at the present time.

6.012 Future Growth.

By projecting an annual increase of 2.1%, using the 1960 de jure population as the origin, the estimated population for 1985 is 2.7 million and for the year 2,000, 3.7 million. By projecting an annual growth rate akin to that of the 1951 - 1960 period in the Cape Province, the corresponding figures are 2.7 million and 3.6 million (Refer to table 1, and diagram 2). In each case the Transkei was looked upon as a closed region. The increase over the 40 year period from 1960 - 2000 is thus at least 2 million. And if the slow

growth between 1946 and 1960 due to emigration is any indication, the subsistence economy will not be able to absorb any of this increase; it would mean that every square mile would have to support about 240 persons, or that each morgen of arable land would have to support almost 4 people - and as shown in table 11 production is approximately 3 bags of maize per cultivated morgen per year.

6.02 Urban-rural Divisions[1].

6.021 The position in 1960.

Of the 1.4 million de facto Bantu population enumerated in 1960 only 18,325 (1.3%) were classified as urban; of these 7,660 (41.8%) were enumerated in Umtata. Of the 12,187 Whites enumerated in 1960, 8,934 were classified as urban (73.3%) and of these 3,449 (38.6%) lived in Umtata. Of the 9,532 Coloureds in the Transkei in 1960, 4,421 were classified as urban (53.6%) and of these 1,112 (25.2%) were enumerated in Umtata. Thus of the 1,429,519 people of all races in the Transkei 31,680 (2%) were classified as urban and of these 12,221 (39%) were enumerated in Umtata.

6.022 Rate of urbanisation: 1951 - 1960:

Comparing figures of the 1951 and 1960 censuses we find that the total urban population in the Transkei increased by 12.8% over the 9 year period. South Africa as a whole (including the Transkei) showed an increase of 36.2% in the urban population over the same period. In the Transkei the Bantu urban population increased by 17.1% (Republic of South Africa 45.2%), the Coloured by 24.1% (Republic of South Africa 41.1%) and the White population by 0.1% (Republic of South Africa 23.6%).

6.023 Urbanisation and natural increase.

The overall rate of urban increase (12.8%) in the Transkei was thus scarcely above the natural increase rate (10.6%) over the 9 year period of 1951 - 1960; the numerically important population, the Bantu, have however shown a greater rate of urbanisation (17.1%) than natural increase (10.9%). (As a result of a "count" in the Umtata Location in March, 1968, it was found that in the 7½ year period from September, 1960, the Bantu population had increased in size from ± 7,600 to ± 13,000[2].)

6.03 Population Density.

6.031 General.

Table 2 reflects Bantu population densities in the Transkei for 1951 and 1964. For a predominantly rural population (98.7%) and bearing in mind that only about 20% of the land is arable (or ploughable) these figures are exceedingly high; in fact, one acre of arable land has to support 1.5 persons. In 1964 the density of the Transkei was 98 persons per square mile. (It is interesting to compare this figure with that of density figures for some rural areas in 1960 in the Western Cape Province of the Republic of South Africa: Paarl 54, Somerset West 65 and Stellenbosch 110, the average density for the rural areas of these three districts being 72 persons per square mile[3]. We thus have the density of the Transkei one and a third times higher than that of the rural areas of the Paarl-Stellenbosch-Somerset West area. And whereas the Transkei is a subsistence-type of farming, the part of the Western Cape Province mentioned above is a highly intensive and specialised farming area).

6.032 Trends.

Maps 12 and 13 reflect the population densities by magisterial districts in 1951 and 1964, whilst Map 14 shows the percentage increase in density over the 13 year period. The density for the Transkei in 1951 was 82 persons per square mile and for 1964 98 persons per square mile, an increase of 20 percent. The range in 1951 was from 44 in Matatiele to 122 in Elliotdale; in 1964 it was from 61 in Mt. Fletcher to 146 in Flagstaff; the percentage increase ranged from 1% in Ngqeleni to 80% in Port St. Johns. (See table 2).

6.033 Population density and arable land.

As 98% of the population live in the rural areas it is important to see whether districts with higher population densities are those with a higher percentage of arable land. By considering Maps 8 and 12 we find that in 1951 districts with the lowest percentage of arable land also generally had lower population densities. The district with the highest percentage of arable land, viz. Elliotdale, also had the highest population density. The districts of Port St. Johns, Mt. Ayliff, Engcobo and St. Marks (Cofimvaba) seemed to have a lower population density than the percentage arable land warranted. No district appeared to have a higher population density than the percentage arable land suggested. (Please note that population densities are here relative to the average for the Transkei and not to any standard or norm of density). By comparing Maps 8 and 13 we can see what the picture was like in 1964. Here, again, districts with the lowest percentage of arable land still had lower densities; and areas with the highest percentage of arable land were among those districts that were most densely populated. The district of Engcobo

still seemed less densely populated than its percentage arable land would suggest. But, unlike 1951 when no districts appeared to be "over-populated", by 1964 the districts of Bizana, Flagstaff, Tabankulu, Lusikisiki, Port St. Johns, Willowvale and Kentani were carrying a far greater population per arable acre than the average for the Transkei as a whole. The rest of the Transkei seemed "normal". It was thus decided to consider whether the increase in population density compared with the potential for carrying an increased population (calculated from low density in 1951 plus a high percentage of arable land as the highest potential) would point to the same districts. The results pointed to Bizana, Flagstaff, Lusikisiki, Port St. Johns and Kentani; plus the districts of Umzimkulu, Matatiele and Mt. Frere, all of which had very low densities in 1951.

It would thus appear that in general districts with a low population density in 1951 plus a higher percentage of arable land attracted greater increases in population in the period 1951 to 1964. Those districts which appear to have become "over-populated" are all along the coast, which has the highest agricultural potential (see the last paragraph of 2.02), except Flagstaff, which, together with Bizana and Lusikisiki, is considered as the most fertile area. (See 4.011).

6.04 Male - Female Ratios.

Table 3 shows male - female ratios for the Bantu population in the Transkei. The overall ratio for 1960 was 72 males per 100 females; this shows no change from the figure for 1951. The low ratio is obviously as a result of the "migrant" labour system (see 6.06) as the ratio for South Africa (including the Transkei, but excluding other foreign

domiciled Bantu[4]) is 96/100. The point to note at this stage is that the range is from 67 to 77 (except for Lusikisiki) so that all areas are affected to the same extent. No reason can be found for the ratio of 92 per 100 for Lusikisiki. (Speculations are that it is known as the district with the most fertile soil and that it contains an area set aside for lepers who may be predominantly male; or else the census figures are incorrect).

6.05 Age Structure.

Diagram 1 depicts the Bantu Population of the Transkei by age groups for 1960. The diagram clearly indicates that the low male - female ratio predominates in the age group 15 - 64, the working-life of the males; in this age-group the ratio is 54 males per 100 females. In the presumed (married) reproductive age-group of 20 - 49 years, the ratio is 46 per 100; 50 out of every 96 males in this age-group are thus intermittently absent from home.

6.06 Migratory or Contract Labour.

6.061 Origin.

Professor J.L. Sadie[5] has summed up the economic reasons for the origin of the migrant labour system as follows: "As the population of the Reserves (until December, 1963, the Transkei formed part of the Native Reserves of South Africa) increased and their primitive agriculture could no longer feed them all, some of them could migrate, on a temporary or permanent basis, to the neighbouring 'White' parts of the country where ample opportunities for earning a livelihood already existed. The necessity for creating new sources of income on their own initiative did not exist".

6.062 Government Policy.

Today it is the Government of the Republic of South Africa's policy to admit "foreign" Bantu into South Africa only as contract migrant labourers. Population pressure in the Transkei can thus not be permanently relieved by emigration; the contract system provides only temporary relief.

6.063 Effects on the Transkei.

From figures made available by the Transkeian Government known migrants reached a peak of 278,903 in 1966[6], dropping to 250,294[7] in 1967. (See Table 4). As pointed out in 6.05 the majority of these migrants are the most able-bodied males in the territory. The Tomlinson Commission[8] felt that the possibility of escape by migration had inhibited the development of the Transkei. It considered that as long as 50% of the adult males (see 6.05) were away working, to supplement the family income, no rehabilitation (agriculturally) was possible; this absence of half the able-bodied male population had generally led to a further decline in agricultural productivity in the Reserves. However, 45 - 50% of the cash income of the Reserves came from migrant workers[9].

From the very nature of this intermittent employment, workers became "jack of all trades and master of none".

6.07 Industry Divisions and Occupation Structure.

6.071 Agriculture dominates.

Table 5 shows that 18.8% of the Bantu population in the Transkei was occupied in agriculture in 1960; and as only 22.2% of the population was economically active, this meant that only 3.4% of the population was occupied in economic activities other than agriculture. We thus find that 84.5% of the economically active members of the population were occupied

in agriculture; services (mainly domestic) accounted for 7.3% and 4.6% were unemployed, leaving only 3.7% occupied in the other 6 industry divisions. Industrial development thus simply did not exist in the Transkei in 1960. Referring to Table 6 showing major occupation groups for Bantu in the Transkei we find that 87.4% of the economically active males gave their occupation as "farmer, fisherman or luberman" and 71.9% of economically active females did likewise.

6.072 Lack of skills.

Only 1.3% of the economically active males and 6.5% of the economically active females were classified as professional or technical. An analysis of this category, however, shows that in the Cape Province of the Republic of South Africa - of which the Transkei formed a part in 1960 - 61.3% of the males and 63.2% of the females were teachers or instructors, 14.1% of the males and 33.4% of the females were nurses or nursing aids, leaving only 24.6% males and 3.4% females for other professional or technical occupations. Applying these last two figures to the Transkei it would mean that there would have been 814 males and 120 females available for employment in a professional or technical capacity other than in the educative or medical fields. This again emphasises the complete lack of industrial opportunities. The only conclusion one can reach here is that in 1960 there was absolutely no nucleus around which to start an industrial society.

6.073 No employment opportunities.

The picture in 1967[10] does not seem to offer much more scope. From an estimated unskilled labour pool of 250,000 males only 28,442 or 11% could find employment in the

Transkei; there was also employment for 12,794 females, a total thus of 41,236. Of these only 19% were employed in industry divisions other than agriculture (8%) and services(73%) - and government departments alone employed 35% of the total labour force, another 23% being employed in domestic service. Only 1,600 labourers were employed in manufacturing and construction - see Table 8. The position as regards semi-skilled and skilled labour is not known in detail; but from conversations with businessmen and Transkeian Government officials semi-skilled labour and particularly skilled labour is virtually non-existent in the Transkei; also, government service appears to be the only scope for such labour - if it were available.

6.08 Standard of Education of the Population.

6.081 Illiteracy.

In Table 9 a comparison is drawn between the three race groups as regards the highest school standard passed. Concerning the Bantu population it is important to note that whereas it is estimated that about 15% of the population is in the pre-school-going age-group, 63% of the de facto population have had no formal education at all. This means that about half of the population is illiterate. At the other end of the scale only 6% have passed standard six or higher, compared with 15% in the Coloured group and 62% in the White group.

6.082 Percentage at school.

Table 10 reflects the present number of Bantu pupils at school in the Transkei. If the present de jure population is taken as being in the vicinity of 1,800,000 and it is further assumed that 24% of the population are of primary school-going age, then at least 74% of this latter group were at school in 1966. This is a higher figure than that of Ghana

which was 60% in 1957 shortly before independence and Togo which was 30.4% in 1960[11].

6.083 Maps 16 and 17 show the locations of post-primary educational institutions in the Transkei in 1953 and 1968. In this 15 year period there was an increase of 15 secondary schools (47 as opposed to 32) and an increase of 13 high schools (17 as opposed to 4). The total number of schools during the past four years has fluctuated around the 1,580 mark.

6.084 Present and future educational requirements.

The percentage increase in the number of pupils in Bantu schools in the Transkei is not constant; the increase from 1963 to 1964 was 10.2%, from 1964 to 1965 it was 4.6%, and from 1965 to 1966 it was 10.6%; the corresponding numerical increase was 1963 to 1964: 26,643; 1964 to 1965: 13,364 and 1965 to 1966: 31,917. (These figures give an average annual increase of roughly 25,000). There appear to be two basic reasons for the fluctuating increases, viz. a shortage of qualified teachers and a shortage of classrooms. In the 1965 Report of the Department of Education the Secretary for Education states:

> "This report reveals that apart from a shortage of suitably qualified teachers on the secondary school level, there is also a considerable shortage of accommodation, furniture and equipment".

The 1966 Report carries much the same message, except that the problem seems to be more acute:

> "No acute difficulty has been experienced in filling (staff) vacancies in primary schools",

but in secondary schools

> "there is an acute shortage of qualified teachers".

The report goes on to say:

> "The 1965 report stated that the rate of expansion (of secondary education) will mainly be determined by the number of suitably qualified teachers and classroom accommodation available. During 1966 this position has been further aggravated by the increasingly high percentage of enrolment in secondary schools".

The under-staffing is so acute that the average pupil/teacher ratio for 1964 and 1965 was 56:1, and for 1966 it was 58:1.

The large drop-out between standard 6 and form 1 can be accounted for by this lack of teachers and classrooms and by the fact that only about 60% of those who enter for the exam actually pass.

In an attempt to project future numbers of pupils two methods were used. (See diagram 3). As the annual increases between 1963 and 1966 did not show a constant rate of increase it was decided to take a straight increase of 25,000 pupils per year and to project this to the year 2000. As a check on this it was assumed that by the year 2000 one-third of the total population would be at school. The numbers for 1966 and 2000 were then plotted on semi-log paper and connected by a straight line. Numbers of pupils were then interpolated for various years and plotted on diagram 3 giving a curved line. It was decided to accept the higher values of the constant annual increase method. To convert numbers of pupils to numbers of teachers (and classrooms) it was assumed that the goal for the year 2000 was a ratio of 30 pupils to 1 teacher. Diagram 4 shows that an annual output of 1,000 teachers per year would be required to satisfy this goal. It would also mean building an additional 1,000 classrooms a year for the 34 year period

1966 to 2000.

Some attempt will be made to correlate education standards and employment by industry group when once it is known what number of people can be settled on the land and what numbers will be occupied in various other employment categories.

6.09 Income.

6.091 Per Capita Income.

In 1951 the Tomlinson Commission found the average family income to be R200[12] per annum, making per capita income R33 per annum. This figure included subsistence production and inward transfers from migrant workers. In 1960 G.C.K. Fölscher[13] estimated the per capita annual income, inclusive of subsistence production and non-marketed household services, as ± R34 for the de facto population; adding nett inward transfers from migrant workers the total was raised to R40. (He adds: "It is unlikely that disposable cash income exceeded R30 per capita in 1960".[14]) Per capita annual income for South Africa as a whole in the mid 1950s was approximately R260[15].

6.092 Government Revenue.

The low income in the Transkei is emphasised by a perusal of the budget for 1968 - 1969[16]. Estimated revenue from income tax is R6,000, from the general tax R1,600,000, from the local tax R240,000 and from the general levy R240,000 making a total of R2,086,000 from all "personal" taxation; in other words, each person in the Transkei contributes approximately R1 per annum in tax. The total revenue raised within the Transkei is only R4,488,000 or R2.5 per capita of an estimated de jure population of 1,800,000.

6.093 Ability to save.

From the above it is obvious that the population cannot afford to save much, if anything. The Tomlinson Commission estimated that in the period 1950 - 1951 the nett savings for the Transkei plus Ciskei was a negative amount of R4,358,800[17]. However, it is probable that if income distribution figures were available there would be individuals capable of investing. (Some witch-doctors, whose incomes are not officially reflected, could possibly fall into this category!) It is also possible that the position has improved since then. The Transkeian Revenue Fund[18], showed an estimated surplus balance of R3,013,000 on the 31st March, 1968. Instead of carrying this forward it could be placed in a development fund.

CHAPTER 7

INFRASTRUCTURE

7.01 Rail and road communications. (Maps 1 and 15).

7.011 Railways.

As shown on Map 15 only three of the 26 towns have direct access to a rail line. The line from Umtata, marked (1), passes through Idutywa and Butterworth before linking with the main line from East London to the Witwatersrand. There is another link with this main line, viz. that marked (2); however, it barely penetrates the Transkei. Rail line (3) is also only a branch line linking Matatiele and Kokstad (excluded from the Transkei) with the main line from Durban to the Witwatersrand. Rail line (4) links Umzimkulu with a line linking rail line (3) with the Natal South Coast line. Rail line (5) is wholely outside the Transkei and is also only an off-shoot from the main line from East London to the Witwatersrand; however, it is only 5 miles from Cala. All rail lines mentioned belong to the Republic of South Africa and are operated by the South African Railways. An important point to note here is that there is no rail line through the Transkei - vide 1.03 and 1.04.

7.012 Roads.

As regards roads, the Transkei is little better off. The national road from East London to Durban (the only tarred road in the territory) passes through the centre of the Transkei, linking 6 towns. The national road from Umtata to Port St. Johns is the only major road providing access to the Transkeian coast. (There are plans to link this road with Port Edward and the Natal South Coast National Road by means of a coastal road). Secondary roads (coloured blue) are

mostly concentrated in the south-western part of the Transkei, i.e. the area closest to the major links between East London and the Witwatersrand. There are numerous minor roads linking the various Transkeian towns. By South African standards these roads are of extremely poor quality. All national and secondary roads are maintained by the Republic of South Africa.

7.013 Airport.

There is a small airport at Umtata used mainly by private small aircraft. Its location and environment is however such that it can be expanded.

7.014 Port.

In the early part of this century there was a harbour at Port St. Johns in the mouth of the Umzimvubu River. With increasing soil erosion the river mouth has, however, silted up to such an extent that the harbour is no longer in use. According to officers in the Department of Roads and Public Works (Transkei Government) it would be possible to rehabilitate this harbour; but at present the development in the Transkei does not warrant the large financial cost this would entail.

7.015 Post and telecommunications.

All towns have a post office and are telephonically linked. These services are at present provided and administered by the Republic of South Africa.

7.02 Educational Institutions.

7.021 Location of schools.

Maps 16 and 17 show the location of all post-primary education facilities in the Transkei in 1953 and 1968.

Secondary and high schools seem more evenly distributed in 1968 than in 1953 although the tendency to form nodes is still evident. The rural character of the population is emphasised by the fact that most schools are located outside the urban areas.

7.022 Population density and Post-primary schools.

Comparing population density in 1951 (Map 12) and the location of secondary and high schools in 1953 (Map 16) we find that the areas with the lowest densities have few schools, particularly Umzimkulu, Matatiele, Mt. Fletcher, Tsolo, Engcobo, Cala (Xalanga) and Port St. Johns. However, the coastal areas, which generally have a higher than average density, have virtually no schools. In general, schools and population density show no correlation at this stage. Schools seem to be concentrated in nodes.

Comparing population density in 1964 (Map 13) with the location of secondary and high schools in 1968 (see Map 17) there also appears to be no correlation. The coastal areas (the most densely populated areas) now have a few schools, but schools are concentrated in a broad belt running from south-west to north-east and north through the centre of the territory. Generally schools are more evenly distributed (in space) than in 1951.

There thus appears to be no correlation between population density and post-primary schools. Other than the concentrations around and in Umtata and Butterworth, schools are also generally located in the rural areas (as is to be expected from a predominantly rural region).

7.03 Location of Banking Facilities.

Map 18 shows the location of banks in the Transkei. Only full branches and sub-branches are shown;

agencies have been omitted as they cannot directly grant credit facilities. Banks are few and far between and serve the local urban communities and trading stations in the surrounding areas.

7.04 Government Systems.

7.041 Division of Authority.

At present the Transkeian Government has authority over all territory except that set aside for White occupation. (The commonage of very town is thus excluded as well as approximately 30 square miles around Port St. Johns). The Transkeian Government controls its own affairs as far as the following six departments are concerned: Finance, Justice (excluding Police), Education (only Bantu), Interior, Agriculture and Forestry, and Roads and Works. All other affairs of central government are provided, controlled and administered by the Government of the Republic of South Africa. (As outlined in the introduction, the Transkei is being considered as an independent state for the purposes of this study; control by the Government of the Republic of South Africa is thus of no importance here).

All towns and their commonage are under the authority of the Cape Provincial Administration of the Republic of South Africa. In 1960 six of these towns had full municipal status, 18 had village management boards and 1 had a local board. These towns are all progressively being zoned for Bantu occupation and will eventually be incorporated into the rest of the Transkei.

7.042 The Legislative Assembly.

The Transkeian, or Territorial Authority as it was formerly known, is the highest authority, as already outlined.

7.043 Tribal Authorities.

At the other end of the scale, the smallest authority is the tribal or community authority. It concentrates on managing the interests of the tribe. Each tribal authority advises and assists higher authorities in matters affecting the welfare of the tribe or community. Matters such as civil and criminal jurisdiction, the carrying out of local development services and soil conservation work may be included in the scope of their duties. These authorities also assist with the local administration of educational affairs, the building of primary schools and the construction and maintenance of local roads.

7.044 District Authorities.

The next step up the ladder is the district authority in which the tribal authority is represented. District authorities act in magisterial districts. The tribal chief of the district is the chairman of such a district authority. These authorities assist with the general affairs and administration in the district, supervise tribal authorities, and assist higher authorities. They also assume responsibility for the collection of local taxes, the spending of funds on behalf of the Legislative Assembly and the acquisition of land which may be required for carrying out various services. District Authorities also ensure that local development services are implemented.

7.045 Regional Authorities.

The Regional Authority bridges the gap between the District Authority and the Legislative Assembly. Regional Authorities assist district and tribal authorites of the region concerned and advise the Legislative Assembly on matters

affecting the region. The Regional Authority is also responsible for the development of education in the region and caters for services such as hospitalisation, agriculture, forestry and stock improvement. It is composed of members of all the district authorities in the region. The nine regions of the Transkei also form the nine electoral divisions for the election of members to the Legislative Assembly.

7.046 Points to note.

The important points to note here are: firstly, the urban areas are still controlled by municipalities and boards which owe no allegiance to any authority under the jurisdiction of the Legislative Assembly, whilst the rural areas are controlled by authorities under the Legislative Assembly; and secondly, there exists a complete hierarchical system of government under the Legislative Assembly. As urban areas are integrated into this latter system, it is suggested that they should fall under the control of the regional authorities and be represented in their particular district authorities, so fitting into the existing hierarchical system.

CHAPTER 8

INDUSTRIAL DEVELOPMENT

8.01 Lack of development.

As pointed out in 6.06 and 6.07 there is virtually no secondary industrial development in the Transkei. In any case, only 2% of the total population is urban and almost a third of these live in Umtata, the administrative centre of the Transkei. (All other urban areas act as service centres for the surrounding areas).

8.02 Services.

Tertiary services consist mainly of general dealers (or trading stations) which supply the surrounding inhabitants with all their needs from pins to ploughs and patent medicines to paraffin; butcheries; filling stations in the villages; hotels for the benefit of tourists in Umtata, holiday-makers along the coast and commercial travellers in general; and isolated banks and their agencies mainly for the benefit of the traders and hotels. Most of these services are provided by "expatriates" from the Republic of South Africa, except for the trading stations and butcheries. These are fairly evenly distributed over the whole of the Transkei with concentrations in the villages. In 1964 there were about 1,200 trading stations ($\frac{1}{3}$ owned or run by Transkeians) and approximately 250 butcheries (40% owned or run by Transkeians) in the rural areas of the Transkei[1].

8.03 Secondary Industry.

Secondary industry consists of a few State-owned saw mills with a central planing mill and preservation installation at Umtata; a timber factory in Umtata employing about

two hundred workmen; a meat processing plant at Umtata employing about 100 workers; a hand-weaving factory at Umtata which uses Transkeian mohair and employs about 100 female workers; and a Bantu-beer brewery at Butterworth - this is only just becoming operational and should employ about 600 persons. All these projects are State-controlled. There are also a few building contractors, but most building is done by the Department of Roads and Works or other State-controlled organisations.

8.04 Primary Industry.

Mining and quarrying operations have come to a standstill during the past few years and only enough "builder's marble" as will keep the lease in force is removed from the deposits near Port St. Johns.

8.05 Need.

As pointed out in 6.073, the Transkei can employ only about 11% of its total male unskilled labour force. Industrial development on a large scale is thus imperative to provide employment for its unskilled labour force, the majority of which "migrates" temporarily to the industrial and farming areas of the adjoining Republic of South Africa.

CHAPTER 9

INDUSTRIAL POTENTIAL

In this chapter it is the intention to find what industries can be created from existing and future local resources, and which areas show potential for industrialisation.

9.01 Labour Pool.

As outlined in 6.073 there is at present a potential labour pool of roughly 250,000 males; to this one should be able to add about 10%[1] of the female population, viz. approximately 100,000. This labour pool is predominantly unskilled, but "on-job" training should be able to provide enough semi-skilled labour. (Skilled labour and managerial requirements will be discussed in Chapter 17).

9.02 Forestry products.

9.021 Timber production.

As outlined in 2.03 it is estimated that eventually 170,000 morgen will be covered by high grade indigenous forests and plantations. These will be spread over a wide area of the Transkei, but concentrated afforestation schemes are in progress in the Umtata and Umzimkulu districts. In 1966 1.6 million cubic feet of saw logs were produced and this figure can be increased to 7.2 million cubic feet by 1985, and eventually to 25 million cubic feet. In addition 1.2 million cubic feet of pulpwood was sold in 1966 and also 400,000 cubic feet of high grade timber; these figures will also increase rapidly over the next decade or two[2].

9.022 Furniture.

At present, all timber required for the furni-

ture factory at Umtata is locally produced. Further furniture factories could easily be started to make use of the timber produced. Consideration could also be given to the manufacture of "prestige" furniture from the Transkeian Stinkwood and Yellow-wood (it is estimated that the annual cut will eventually amount to about 500,000 cubic feet[3]); this prestige furniture would find a ready market in the Republic of South Africa.

9.023 Building timber.

Locally produced saw timber is already used in the building industry. Prefabricated wooden houses are also manufactured by the furniture factory at Umtata. The market is at present limited in the Transkei, and rail transport costs to the Republic of South Africa take most of the "profits" out of this venture. This problem can, however, be tackled by the two respective governments, particularly as the market for such structures is expanding. When holiday resorts are opened up in the Transkei, a potential market should exist within the territory.

9.024 Pulp and paper.

The district of Umzimkulu forms the core of a fairly highly concentrated forestry area. Instead of exporting pulpwood, additional pulpwood could be imported from the surrounding forests and plantations in Natal for a pulp and paper factory operating in Umzimkulu, the major plantations being located in this district at Glengarry and Sneezewood.

9.03 Cattle products.

9.031 Meat.

Referring to Table 12 we see that the Transkei has 1.3 million cattle at present. This figure represents

11% of the total South African cattle population. At present the only industrial utilisation of this potential is the meat deboning and packing factory at Umtata. A thorough investigation into this type of processing and its market might show that the industry could be expanded. By using "scrub"-cattle for this industry the better grade cattle would be left for conventional slaughtering. There might be a large potential market for cheap packed-meat as pets' meat in the larger urban centres of the Republic of South Africa. Transport costs would have to be carefully considered here, though.

9.032 Bone meal.

There seems no reason why a bone meal mill should not operate in conjunction with such a deboning plant. Additional bones for processing into bone meal could also be collected at strategically placed depots - about 100,000 cattle die and a further 75,000 are slaughtered every year in the Transkei[4].

9.033 Tanning.

With 175,000 carcasses each year some use could be made of the hides. As a start, rough tanning could be undertaken and later production of boots and shoes etc.

9.034 Dairy Products.

In the districts of Elliot and Maclear, adjoining the Transkei along its north-west boundary, co-operative cheese factories were started to use up surplus milk. The same type of undertaking seems quite feasible in the Transkei. This could operate as an export industry. The Republic of South Africa is also a potential marked for butter; dairies could be established in conjunction with the cheese

factories. It could also be advisable to manufacture powdered milk which could not only be exported but also used during winter months when normal supplies of fresh milk can be expected to be lower.

9.04 Sheep.

In 1967 the Transkei carried 2.3 million sheep, i.e. 6% of all the sheep in South Africa. The Transkei at present produces roughly 11,000,000 lbs. of wool annually[5]. A textile mill and factory could obviously utilise part of the wool output. A clothing factory is the next step. Skins could also be processed.

9.05 Goats.

At present there are roughly 1 million goats in the Transkei. A weaving factory has already been established at Umtata to make use of local mohair. Looms and spinning wheels are hand-operated. So far this factory has proved very successful and there is room for more on the same scale.

9.06 Cotton.

As pointed out in 5.01 cotton thrives well in the St. Marks district. Whether large scale planting will prove successful and profitable is not yet certain. In certain areas in the Ciskei cotton is also produced. A pooling of produce might supply sufficient raw cotton for a textile factory. A clothing factory could further process the product. A plant for extruding oil from cotton seed could also be established.

9.07 Phormium Tenax.

At present 2,000 morgen have been planted with phormium tenax. Production runs at approximately 2 tons of fibre per morgen. Plans for a decorticating plant at

Butterworth are already under way. The fibre can be used for the local manufacture of bags, lightweight shoes, sleeping mats, rope, twine etc.

9.08 Tea.

At present roughly 3,000 morgen of land seem to be suitable for tea planting. Processing plants have to be erected on the site. Production should run at 400 lbs. of processed tea per morgen, giving a total of 1.2 million lbs. per annum. It is estimated by those in charge of the tea planting project that about 600 morgen are required to keep one tea factory in operation. It thus seems possible to establish 4 or 5 such factories or plants in the tea-growing area.

9.09 Coffee.

The experiments with coffee have proved so successful[6] that processing plants can be established at various sites in the coastal region. Coffee is normally processed close to the growing areas.

9.10 Sugar.

If sugar is grown in the coastal region, sugar mills would have to be erected nearby.

9.11 Maize.

The staple diet being maize and production being so low at present mealie-meal mills do not seem to offer much scope at present. With an increase in maize production mills for grinding maize, kaffir-corn and wheat could be established.

9.12 Builder's marble.

The quarrying and polishing of travertine near

Port St. Johns would appear to be a very feasible project. Exporting the product, however, presents problems in that the weight and bulkiness of the finished product makes transportation expensive. If Port St. Johns' harbour could be rehabilitated to cope with small coasters, transportation costs might be cut, depending on whether the market was at the coastal cities or inland. (A similar problem was encountered with the mining and cutting of quartzite facing slabs in Namaqualand; Port Nolloth appeared to offer the way to sea transportation; but as the market was on the Witwatersrand it was found that motor and rail transport was cheaper than motor, sea and then rail transport).

9.13 Copper and Nickel.

As there is a veil of official secrecy over the quality and quantity of the deposits around and near Mt. Ayliff no definite proposals can be made. As mentioned in 2.044, the Tomlinson Commission seemed enthusiastic about the potential and unofficial rumours seem to emphasise its opinion; but no further official information can be obtained. If the deposits warrant it, a mining and ancilliary industrial complex could develop here.

9.14 Potential Industrial Areas.

9.141 Requisites.

The question arises as to what the essential requisites (ignoring supply and market areas for the time being) for industrial areas, within a given region, are.

Broadly speaking they seem to include the following:

(1) a good power supply;

(2) a sufficient and constant water supply;

(3) rail links with areas outside the region particularly where industries are export oriented;

(4) good road communications within the region and to the outside areas;

(5) tele-communications within the region and linking it to other areas; and

(6) existing nodes of activity.

9.142 Available Nodes.

Starting with existing nodes[7], we find that only one town, Umtata, has an urban population of more than 10,000 persons (its population was 12,221 in 1960); two towns, Butterworth and Cala, have urban populations between 2,000 and 3,000; and five towns, viz. Engcobo, Idutywa, Mt. Frere, Port St. Johns and Umzimkulu, have urban populations of between 1,000 and 2,000 persons. There are thus 8 towns with urban populations in excess of 1,000, only one of them having a population exceeding 10,000 persons. (Two of the 8 towns, viz. Cala and Umzimkulu, appear not to generate enough economic activity to warrant the existence of merchant banks).

9.143 Analysis of Nodes.

These 8 towns will now be analysed with regard to the other 5 requisites. Referring to Map 6 we find that all are within easy reach of a major water supply, Idutywa being $\pm$ 10 miles from its major source. All villages and towns in the Transkei have postal services including telegraph and telephone links (refer 7.015). Umtata generates its own electric power, is within the Escom licensed area, and is

within 35 miles of the potential hydro-electric sites at the Tsitsa and Tina falls (see Map 7); Butterworth and Idutywa already obtain their electric power from Escom and Idutywa is about 12 miles distant from the potential hydro-electric site in the Bashee River; Engcobo and Cala do not have a good power supply, but are in Escom's licensed area; Port St. Johns, Mt. Frere and Umzimkulu have no good power sources and are not within the Escom licensed area. Referring to Map 15, we see that Umtata, Idutywa and Butterworth are the only towns with direct rail links; Umzimkulu is within 2 miles of a branch-line rail-head and Cala within 5 miles of a branch-line. As regards road communications, Butterworth, Idutywa, Mount Frere and Umzimkulu are located on the national road from East London to Durban, Port St. Johns is at the terminal of the national road from Umtata to the coast, and Cala and Engcobo are served by good secondary roads.

9.144 Results.

Referring to table 13 we see that, of the five required facilities, Umtata, Butterworth and Idutywa have all 5; Cala has 4; Engcobo and Umzimkulu have $3\frac{1}{2}$; and Mt. Frere and Port St. Johns 3.

9.145 Conclusions.

Given the present infrastructure then, Umtata, Butterworth and Idutywa offer the best facilities as future secondary industry areas. The fact that they are directly linked by rail and the national road, thus facilitating interaction, adds potential to them individually and collectively. If natural resources warrant development, infrastructure will have to be provided to exploit such resources.

CHAPTER 10

THE PROBLEM

10.01 The Potential is there.

The Transkei has a moist, temperate climate. As we have seen, the soil is fertile and the rainfall good. Pierre Gourou[1] describes the temperate climate as the best for man, beast and crop production. However, productivity in the Transkei is low.

10.02 Low Yield.

The Transkei produces, on the average, less than 3 bags of maize per morgen, while in the dry climate of the Orange Free State and Western Transvaal, farmers produce between 8 and 10 bags per morgen[2]; the Transkei has 6% of the sheep in South Africa, yet produced only 1.8% of the value of the 1960 wool clip[3]; the Transkei has ± 10% of South Africa's cattle population, but suffers ± 20% of the country's annual stock losses; in 1960 exports of agricultural products totalled R7.6 million and transfers from migrant labourers R8.5 million, a total income of R16.1 million, while imports of agricultural products were R6.3 million and of industrial products R27.8 million, a total of R34.1 million[4].

10.03 The Symptoms.

The question arises as to why we have these large differences in productivity. The answer lies in the fact that the country is backward or underdeveloped; the symptoms are all there:

(1) per capita annual income in the Transkei was R40 in 1960[5], while for South Africa as a whole it was about R300[6];

(2) in 1960, 98% of the population was rural[7], while the corresponding figure for South Africa was 53%[8] and for the world 67%[9];

(3) rural population density in 1964 was 98 persons per square mile whereas that of the highly intensive farming area around Stellenbosch, Paarl and Somerset West was only 72 persons per square mile in 1960; (see 6.031)

(4) 50% of the able-bodied males are absent from the Transkei as migrant labourers at any given time; (see 6.05)

(5) 85% of the economically active population in the Transkei was occupied in agriculture in 1960, (see 6.071) whereas only 30% of the economically active population of South Africa was similarly employed[10];

(6) rail and good road communications are few and far between; (see Map 15)

(7) mining, processing and manufacturing industry is almost conspicuous by its absence; (see 8.01) and

(8) 63% of the population was illiterate in 1960.

But as outlined in Chapter 4 the potential for higher agricultural productivity through diversifaction of crops and improved farming methods, is there. Expartriate farmers from the Republic of South Africa produce up to 58 bags[11] of maize per morgen and grow bananas for export in the Port St. Johns district. The question as to why their example has not been followed could point to the malady.

10.04 The Malady.

As suggested by Prof. J.L. Sadie (see 6.061), migrant labour to the adjacent more developed areas provided an escape valve from decreasing productivity. The necessity

for creating new sources of income, i.e. developing the potential of the country, was not there. There was thus no reason to change the primitive attitude towards life; we thus have a social problem. This is pointed to by Mr. S.W. Pienaar, Secretary for Agriculture in the Transkei: "Our problem in the Transkei is not an agricultural problem. It is a social problem. If the people were to accept our guidance and advice more readily and if they were prepared to do hard work and if they realised that their progress depended on their own efforts, the development here would be spectacular"[12].

In his report of 1966[13], the Secretary for Education, Mr. J.L. Boshoff, also points to the problem of underdevelopment in the Transkei being not only an economic problem, but "in the first instance a social one. ....Until its human resources are developed, any country will remain under-developed primarily because the society that populates it is under-developed. The attitudes and outlook of the people must therefore be changed, and education is the most effective means of bringing about this change; of bringing people into contact with new ideas; of stimulating within them a healthy dissatisfaction with conditions as they are and of creating an urge to improve the physical environment in which they live".

10.05 Approach towards a solution.

The fundamental approach to the Transkei's development must thus be in generating human action in a certain direction while at the same time removing the obstacles to advancement.

10.06 Priorities.

To increase productivity and per capita income it is firstly essential to create a true farming community which

will make use of technology to improve the productivity of the labour and the soil.

Secondly, alternate forms of employment must be created at the same time to provide jobs for those who may be displaced from the land and for those reaching employment age. In all developed countries non-agricultural employment opportunities tend to concentrate in cities, i.e. urban areas. This phenomenon could be said to result from three basic location forces, viz. transport cost differentials, labour cost differentials and agglomeration. The latter has been classifed by Isard[14] as

> "(a) Large-scale economies within a firm, consequent upon the enlargement of the firm's scale of production at one point.
>
> (b) Localization economies for all firms in a single industry at a single location, consequent upon the enlargement of the total output of that industry at that location.
>
> (c) Urbanization economies for all firms in all industries at a single location, consequent upon the enlargement of the total economic size (population, income, output, or wealth) of that location, for all industries taken together".

Consideration will thus have to be given to the development of cities.

Thirdly, consideration must be given to the building of roads and the provision of other infrastructure. Roads open up the hinterland for the market. In developed countries every consumer has access to the market areas of each good, but such access is remote or non-existent for much of the hinterland of underdeveloped countries. Providing access through improvement in transportation and communication would not only help to open the rural areas as supply and

market areas, but is likely to raise the productivity of the surrounding agricultural regions.

Fourthly, education will have to play a major role in supplying the skills necessary for advanced farming and industrial employment, and in bringing about a change of attitude and outlook in the population. Politicians should help in bringing about the latter, but only by education and leadership.

Fifthly, ways of finding the initial requisite capital, skills and enterprise will have to be assessed.

Lastly, with increased medical facilities the death-rate is bound to drop and consideration will have to be given to some form of population control if the natural increase rate is to be contained within the 2% to 3% range.

CHAPTER 11

STATE POLICY

In his book "The Strategy of Economic Development", Hirschman says: "If only we could in some respects treat a region as though it were a country and in some others treat a country as though it were a region, we would indeed get the best of both worlds and be able to create situations particularly favourable to development"[1].

11.01 Separatism:

The case for separatism consists largely in showing that the polarization effects, i.e. the unfavourable effects, will be far less damaging to a country than to a region, given that the country or region is underdeveloped and adjacent to a more developed country or region.

11.011 Mobility would be far lower if the underdeveloped area were an independent country, i.e. the developed area would not so easily be able to denude the underdeveloped area of its key technicians, managers, more enterprising young men; and other factors of production.

11.012 Countries compete in international markets on the basis of comparative advantage, regions within a country on the basis of absolute advantage. At present the Transkei's only absolute advantage seems to repose in its unskilled and semi-skilled labour offered for employment outside the territory on a temporary basis, in its natural beauty from which the tourist industry can develop and perhaps in its base minerals. If the Transkei were, however, to develop as a separate nation, sugar could, however, be produced for the international market despite its relative inefficiency as compared with the rest of the

Republic. Copper production could be looked at in the same way.

11.013 Also within a country, the industrialists of the more advanced regions may effectively prevent or delay the development of industry in the underdeveloped region; in relations between sovereign countries attempts have far smaller chances of success. Thus if subsidies are granted to industrialists to locate in the Transkei from revenue obtained from other Republican industrialists, this could best be done in the form of aid granted to the Transkeian Government who in turn would make it available to those industrialists willing to locate in the Transkei; alternatively income tax rebates could be given these industries, the shortfall being made up by the Republican Government.

11.02 Regionalism:

As the polorization or unfavourable effects will be stronger when there are no frontiers to cross so will the trickling-down or favourable effects.

11.021 The development of the Republic of South Africa is bound to lead to some purchases and investments in the Transkei; at present wool and hides and skins are purchased from the Transkei and investments have taken place in the form of trading stores and other services. All complementarities that exist within a country are thus likley to be readily exploited - such as the labour supply in the Transkei. Between sovereign countries potential complementarities are likely to be taken advantage of in a far more selective fashion, not only because of space friction, but because of the many other frictions that are encountered as soon as frontiers are crossed.

11.022 If a country has nothing particularly essential to offer it may remain excluded from any important participation in world trade for a long time, when, as a region integrated into a larger country, it might have contributed to inter-regional trade. Thus, if the Transkei is faced with losing its employment market in the Republic of South Africa it can more easily resist as a region than as a separate state.

11.023 When faced with certain temporary problems such as a bad drought which is holding up the export of certain agricultural products, the Transkei, if a region of South Africa, will be able to call for help from the larger unit more easily than if it were a separate nation; and the trade is likely to be resumed whenever the supply difficulties in the Transkei have been solved.

11.024 Regional co-operation also allows for basic economic and other services (e.g. postal) to be supplied by the Republican government as extensions of its own services at a lower unit cost than if independent services had to be provided for by the Transkeian government. It thus relieves the Transkei from heavy capital investment in a situation where capital is already scarce.

11.03 It thus appears that it is possible to develop the Transkei by considering it partly as a region of the Republic of South Africa and partly as an independent nation.

CHAPTER 12

FARM AND LAND POLICY

12.01 The necessity for improving farming.

In any underdeveloped country a breakthrough in agriculture is crucial and especially difficult. It is crucial because the slow growth of agricultural output is usually the chief brake on the rest of the economy, and especially difficult because some hundreds of thousands of uneducated peasants have to be influenced to change their attitude towards farming. The problem is further magnified in the Transkei by the fact that no true farming community exists. Traditionally "farming" has been done by women, whilst the men have supplemented the subsistence of their families by selling their labour outside the country.

12.02 The broad policy.

The farm policy adopted in the Transkei must thus firstly aim at creating a true farming class, i.e. it will entail a land-settlement policy, and secondly it must aim at increasing productivity.

12.03 A basic problem.

Whichever land-settlement policy is adopted, one problem is central to them all: the land cannot support its present population by agriculture alone. Accepting that each family of 6 needs 15 bags of maize (the staple diet and almost the only crop at present) per year to subsist, the total amount of maize produced in 1966 - 1967 would be able to support 134,000 families out of an estimated total 310,000 families. Using all available arable land - excluding about 40,000 morgen for irrigation schemes and other projects - the country could support 160,000 families on a subsistence basis, given

the present methods of farming. By increasing the productivity of maize farming to its maximum potential the country would just be able to support its present population on a subsistence basis. And this certainly will not keep the able-bodied males from opting for the easier method of selling their labour across the border. Farming on a full-time basis has to be as attractive economically as part-time farming plus part-time contract labour. Professor G.L. Rutman[1] estimates that the total income from part-time farming and migration is roughly R174 per year. Farming units must thus be able to produce an income at least as large as this figure; and the target figure must be such that it is not constant over time.

12.04 Four principles for farming.

Broadly speaking there are four different principles upon which farming in the Transkei can be based. Professor D. Hobart Houghton[2] distinguishes them as follows: the present modified tribal system; a large number of independent peasant farmers; a system of large co-operative farms; and a relatively small number of large privately owned farms.

12.041 The present system.

There is virtually nothing to be said in favour of this system. Even if half the families are removed from the land, little progress can be expected, and unless land tenure is altered, natural increase will soon restore conditions to what they were before half the population was moved off the land. The chief weakness is that access to land is wholly divorced from agricultural competence. Land is almost a "free good" and anyone belonging to the tribe can acquire it simply by getting married. Another weakness is that of common grazing: it is in no single person's interest to restrict the number of stock to the optimum carrying capacity of the land;

in 1951 the Transkei already carried about 2 million large stock units instead of about 1.2 million (see 4.022). Optimum and maximum carrying capacity must be differentiated between. Moreover, when all the stock run together selective breeding is impossible and scientific management of pasture is difficult. The third important weakness of the system is that open arable lands make progressive agriculture impossible; by custom everyone grows the same crop at the same time, and when this is harvested the cattle are allowed to graze upon the stubble. Thus innovation and experimentation with new crops is impossible as is a rotation of crops; and these are essential for added productivity.

12.042 Peasant farming.

The second possibility is to settle a large number of peasant farmers on the land, giving to each a piece of land of sufficient size to yield a livelihood as good as that presently achieved from part-time farming plus part-time migration; the piece of land should also be large enough for sound farming methods to be employed, but at the same time basically small enough to be farmed by a family without recourse to hired labour. The peasants must, however, have security of tenure (see 12.06) to make it worth their while to improve their holdings, and access to adequate working capital to prevent the holdings from falling into the hands of moneylenders - see 12.054(a).

Peasant farming has certain disadvantages. These are briefly that the peasant farmer often has inadequate financial resources to tide him over a series of bad years, that he finds it difficult to get sufficient working capital to buy machinery and to get the best seed, that his land holding is too small to take full advantage of the possibility of modern mechanisation, and that he is usually too uneducated to keep up

with developments in agricultural science. These disadvantages can, however, be overcome - see 12.054(a).

12.043 Collective or Communal Farms.

The disadvantages mentioned above, it is claimed, may be overcome by collective state farms or communal farming. Because of the co-operative nature of Bantu farming sketched in Chapter 5, it is held by some people that it should be easy for the Transkei to adapt to this type of social organization. Voluntary co-operative farming has proved very successful in Israel, where the groups are bound together by loyalty to a common ideal. There seem to be no grounds for believing that this "common ideal togetherness" is manifest in the Transkei or that it is likely to emerge in the near future. If collectivism is to be enforced it approximates either the Russian type of collective farm or the Chinese communal farm. According to Professor Hobart D. Houghton[3] the collectivisation of agriculture seems to have presented the greatest difficulities in Russia's economic development; agricultural productivity in China also does not appear to have increased after collectivisation in 1957 and the subsequent institution of communes each of about fifty thousand people. Wilson[4] finds that ".... the grim fact must be faced by the Communist leaders that the 1967 foodgrain harvest was only about level with that of 1957. Nine precious years have been, as it were, lost in the drive to increase production".

12.044 Large-scale private farming.

Fourthly, there is the possibility of developing the Transkei on the same principles applying to most of the farmers in the Republic of South Africa. Large tracts of land are owned by a single individual and are worked by hired labour under the direction of the farmer. The large farmer may be

expected to have more adequate financial resources to resist a series of bad years and to enable him to afford agricultural machinery. He may also have more knowledge of farming than the peasant, or be in a position to employ agricultural experts. The size of farms will be determined by the technical optimum for the employment of labour and machinery, limited by the extent of the farmer's managerial ability. There is thus an economic selection of efficient farmers as those who are inefficient go bankrupt and have to sell out to the more efficient one who thus increase their holdings. Unlike collective farming, the individual farm-owner is free from the State and fellow co-operators; he owns the land, puts up the capital, takes all the entrepeneurial risks, is free to experiment, to introduce innovations, and to plan his farming activities in the light of his knowledge of farming technology and his expectations of the market.

12.045 The choice for the Transkei.

From the strictly economic productivity point of view much depends on whether land or labour is regarded as the scarce factor. Relatively small-scale labour-intensive farming is likely to yield the highest return per morgen, whereas large-scale capital-intensive farming will tend to produce the highest income per worker engaged in farming. Thus where there is a large population dependent upon the land as is the case in the Transkei, the former would appear to be preferable. Accepting all the advantages and disadvantages of the various farming systems we are thus left with some form of peasant farming as the only practical starting point. When once the ratio of persons to farm-land has been reduced consideration can be given to large-scale capital-intensive farming.

12.05 A policy for farm-land distribution.

Bearing in mind the fact that a large number of people will have to be shifted from agriculture to some other form of livelihood, the broad land settlement policy could possibly be along the following lines:

12.051 Land under new cash crops.

All land where cash crops can be grown should be earmarked for this type of farming. When once it has been ascertained that a particular crop thrives in a particular area, the land should be subdivided into economic units and sold with security of tenure. The cash crops would include tea, coffee, phormium tenax, sugar, cotton and sub-tropical fruit. This would mean that most of the coastal region (see Map 9) would have to be set aside for this type of farming; the tea-growing and fibre areas would likewise be destined for this type of development. A land-settlement scheme similar to that suggested here was started in Kenya[5] in 1955; at this time the value of marketed produce from small-scale agriculture was £5.1 million, but by 1966 it had increased to £19.0 million, i.e. a doubling in value every five years or so.

12.052 Irrigation Schemes.

All land that can be irrigated easily (see Maps 6 and 9) should be set aside for irrigation schemes. These schemes must then be subdivided into economic holdings as laid down by existing policy; but when settled, the units should be sold with security of title. Experiments with various crops in various areas will have to be undertaken to find out which crops suit each area best and provide the maximum return. At first these experiments will have to be undertaken by government agricultural agencies until such time as the

farmers are educated enough to try innovations by themselves. All areas indicated as potential irrigation schemes on Map 9 would be included under the land set aside for these schemes. It is of course possible to irrigate most arable land in the water-abundant areas shown on Map 4, but where extensive canals, tunnels and piping will be required to irrigate small areas, it is suggested that such areas be developed at a later stage when and if it is economically feasible to do so.

12.053 Forestry and Plantations.

As outlined in 2.03 it is estimated that eventually 170,000 morgen will be covered by high-grade indigenous forests and plantations. It is suggested that land so covered remains State property so that the timber resources can be planned and controlled on an integrated basis.

12.054 Land for peasant farming.

The remaining area of farming land provides the largest problem. At present peasant villages with separate areas for living, cultivating and grazing are being established over most of this area. These settlements are known as locations and, on the average, are 4,000 morgen in extent, accommodating 300 families. Each family will have its own residential plot and arable land with common grazing. There is no security of title, all land being tribal land. The existing policy is thus only one step forward from the system described in 12.041 in that arable land has been fenced off and grazing land has been divided into camps. As already shown in 4.011 only 23% of the Transkei is arable land. Each location thus contains about 1000 morgen of arable land for 300 families, i.e. 3⅓ morgen per family. Average productivity per morgen is still less than 3 bags per morgen (see table 11); this means

that each family produces less than ten bags of maize per annum - and as each family needs about 15 bags to subsist arable land per family will have to be increased to attract full-time farmers.

It is suggested that the locations be replanned into two distinct groups. Group A will have settlements where full-time farming is carried out and Group B will be trasitional settlements where part-time farmers can be accommodated until such time as the urban areas can provide employment and residence for these families.

(a) Group A Settlements:

It is suggested that each farmer in the Group A settlements be given about twice the amount of land they are presently being given in the planned locations. This would mean about 6 or 7 morgen of arable land and 25 - 30 morgen of grazing (see 12.056). With present farming technology he should thus be able to produce between 16 and 20 bags of maize per annum and graze between 10 and 12 large stock units depending on carrying capacity - see 4.022. This will provide each family with enough maize or its equivalent in some other crop for subsistence; there will also be additional income from surplus stock. With an improvement in farming technology and the quality of stock each peasant farmer should be able to produce 60 to 70 bags of maize or its equivalent in some other crop - see 4.013 - and also receive an income from his stock. Again, these farms should be sold and title made secure.

Farmers should be encouraged to form co-operative societies for all those activities which can be handled more efficiently at a larger scale. In 12.042 reference was made to certain disadvantages inherent in the peasant-farming system. Co-operative societies can purchase seed, fertilizer, equipment

etc. in bulk and thus supply it to individual farmers at reduced prices; they can also facilitate in the marketing of produce. Several co-operatives could combine for the manufacture of butter and cheese from surplus milk. Co-operatives can also be used in a wider sense: if a certain percentage of the profit from the sale of produce is retained as working capital, the co-operatives can be used for purchasing large-scale farm implements which individual farmers could not use economically - a threshing machine could then, for example, be used by a whole group of farmers. The individual farmers will thus be able to take advantage of modern mechanisation wherever feasible. Where winter feeding has to be catered for, silos can be erected by the co-operatives thus obviating a duplication and taking advantage of scale economies in building a few larger units. The co-operative societies can also play a very important part in making sufficient working capital available to individual farmers: the co-operative could be an intermediary between the individual farmer and the credit institution with the State acting as security. In this way individual farmers should have access to adequate working capital to prevent the holdings from falling into the hands of moneylenders. In the event of a farmer going bankrupt the co-operative would become the owner of the farm and could then sell it to either a more progressive farmer in the co-operative or to a new farmer, the displaced farmer being decanted to a Group B settlement. Co-operative societies could also provide facilities for education for farmers in liaison with the government departments of agriculture and education. Formal education would simplify the tasks of agricultural extension officers and would also be some basis for keeping up with developments in agricultural science.

(b) Group B Settlements:

These transitional settlements, it is suggested, must cater for those presently on the land, but not wishing to become full-time farmers and who cannot afford to locate in the urban centres. All contract or migrant labour will have to be drawn from these settlements. Part of the income of families on these settlements will come from the land, part in transfers or remittances from migrant labourers and part from craft centres to be established in the towns. These settlements should be planned on the lines of existing locations, i.e. arable land, grazing land and residential land must be separated. These settlements will have a far higher density than the Group A Settlements and are to be looked upon as temporary. No security of tenure should be given here in view of their transitional nature. With urbanisation taking place, a positive policy would make sure that the majority of those located on these Group B settlements will eventually migrate to the urban centres. Labour training facilities will facilitate the permanent move to the urban centres.

It is suggested that these settlements be located around the existing and proposed new towns or villages - see 13.04. Small work centres for home-craft type industries should be provided in the towns to provide employment opportunities for the Group B settlers - see 14.085. With employment being offered in the cities and towns in the Transkei, the distances which migrant labourers have to travel will be greatly reduced as will the length of absence from home. The system whereby labourers migrate temporarily to the Republic of South Africa could thus eventually disappear; and when once the industrial areas in the Transkei have developed it should be possible for migrants to become "true migrants" settling with their families in the Transkeian urban areas. At this

point in time the Group B settlements will have served their purpose; the land will then be ripe for redevelopment.

12.055 The distribution of the land.

Land under the new cash crops (12.051) will take up most of the coastal region which is about 600,000 morgen in extent, plus that set aside for tea and fibre growing which should total about 200,000 morgen. The irrigation schemes in 12.052 take up about 200,000 morgen. Therefore, a total of about 1 million morgen of land will be set aside for special projects. (It should be noted that as only 23% of the land in the Transkei is arable, only about 230,000 morgen of arable land are available for these projects). As the Transkei has 4.2 million morgen[6] of land available for farming, this means that about 3.2 million morgen are available for Group A and Group B settlements.

12.056 The distribution of the farming population.

It is essential to note that areas and carrying capacities suggested are only rough averages for the whole of the Transkei and each settlement area will require detailed planning as to size, carrying capacity and mix of stock. This will depend on soil fertility, climate and type of grazing. In consultation with agricultural officers in the Transkei it was ascertained that in general 2 morgen on an irrigation scheme and 2 morgen of land under tea, phormium tenax or coffee should be able to provide an income of R300 - R400 per annum. What the size of units under sugar or sub-tropical fruit will have to be to produce this income is not known and rough estimates of 5 morgen were mentioned. If the figure of 5 morgen is accepted for all the land set aside under 12.051 and 12.052 the 230,000 morgen of arable land will be able to support about

46,000 families. Part of the 770,000 morgen of land not suitable for ploughing can be added to the 5 morgen unit for grazing purposes and part of it can be added to the Group A and B settlements so that their grazing land becomes larger in extent. When once the productivity of the Group A settlements has been raised to the maximum potential each farmer should be able to earn about R300 per annum at present prices. (70 bags of maize at R3 per bag, plus R60 for one ox, plus R30 for surplus milk and wool). The income from each unit is thus almost twice that considered as a minimum under present conditions - see 12.03. The division of families between Group A and Group B settlements will obviously depend on the number of families wishing to engage in full-time farming. If the total remaining area were divided into Group A settlements it could accommodate another 105,000 families. It is thus possible to settle ± 150,000 families as full-time farmers, i.e. just about 50% of the present population or about 30% of the projected population for the year 2000.

12.06 Land Tenure.

12.061 The Tomlinson Commission was emphatic that the reform of land tenure was an essential condition of agricultural reform. To quote from the Report[7]: "A revision of the system of land tenure is regarded as one of the prerequisites of the stabilisation of land in the Bantu Areas and the full economic development of their potential..... It is essential to make opportunities for the creation of a class of contented full-time Bantu farmers, with holdings of sufficient size to enable them to farm profitably and to exercise their initiative and to develop according to their individual ability and resources. The abolition of the 'one-man-one-lot' policy is accordingly recommended". The Commission went on to recommend

freehold title to land.

12.062 A large number of peasant farms held by freehold title might however bring about certain problems at a later stage. When the Transkei's economy has been developed to the point when the flock to the cities begins the individual small farms will most likely have to be regrouped into larger units for large-scale farming as described in 12.044. Certain land is also bound to be required for the expansion of the towns and the creation of new towns or industrial areas. To facilitate the change in scale of farming operations and change in use it seems essential to allow for a flexible system of land tenure. It is thus suggested that security of title be given in the form of a long-term lease whereby an owner will still be able to sell his holding if he so desires. Land will thus remain the property of the State. It is felt that it will take at least 20 to 30 years before peasant farming reaches maturity. It is thus suggested that leases should stretch for two generations, i.e. about 50 years, to allow enough incentive to the farmer to improve this holding for his sons. When the leases expire there must be an option for their renewal. The leases could be regulated whereby they will only be renewed if full-time farming is practised on the land. In this way cognisance can be taken of changing economic patterns.

12.063 At present all those engaged in farming have tribal rights to the land. To facilitate the relocation of the people it is suggested that those who move right off the land should be compensated for their tribal rights to arable and grazing land. Those who wish to become full-time farmers on one or another of the settlements should pay for the lease-rights to their farming units; their compensation for their tribal rights could serve as a deposit for the new unit, the

balance payable over the period of the lease. The purchasing and compensation amounts would depend on the economic value of the land.

12.07 Increasing Productivity.

As stated in 12.02 the second aim of the farm policy must be to increase the productivity of the land. By releasing pressure on a large portion of the farming area by means of the various settlement schemes productivity should automatically increase. Stock reductions alone should make far more cattle and sheep available for slaughtering and processing; and the future stock should be of a higher quality by having more grazing land per animal. By creating a true farming sector each morgen should eventually produce far more in the line of crops. In Kenya[8] the value of subsistence crops rose from £48 million in 1955 to £75 million in 1966 after the introduction of a true farming population.

Experimental farms, demonstration lands, extension officers and model farms in each settlement area should pay dividends. By increasing the income of the farm population there will be an expanded market for goods manufactured in the urban areas. The concentration of people in the urban areas around the manufacturing and service industries will in turn put pressure on the farmers to produce more foodstuffs.

CHAPTER 13

URBAN POLICY

13.01 The urban population.

As this study postulates a stimulated development of the Transkei, it is important to know how many people will make up the urban population. Accepting that the agricultural sector can support 200,000 families, i.e. about 1.2 million people, by the year 2000, it will mean that at least 2.5 to 3 million people will have to be accommodated elsewhere. It is suggested that most of these will have to be living in some kind of urban environment.

13.02 City-size and distribution.

One of the problems we face is that of the size and distribution of cities. In 1960 South Africa as a whole had 19 cities with a population of over 50,000, 3 of these cities having a population of over 500,000. However, these 19 cities accounted for 65% of the urban population of 7.5 million; another 17% were located in the 10 - 50 thousand city size. The majority (82%) of the urban population was thus located in cities having a population of 10,000 or more.

From theory we know that cities have originated as a result of 3 basic causes: central places providing services to their hinterland; transport foci or break of bulk points such as harbours; and at points where specialised services or functions have concentrated such as around a particular natural resource. We also know that there is a hierachy of central places as regards population and services offered. Cities have thus developed for specific purposes and in general are of varying size. Lloyd Rodwin[1] feels that as a result of the hierarchical pattern of cities any attempt by underdeveloped

countries to equalise the urban scale, i.e. develop all their cities to the same size, will have to reverse powerful trends. He thus feels that a more feasible alternative might be to try to convert a few significant growth points into large cities of varying sizes and thus achieve a balanced urban hierachy. Bearing in mind the smallness of the Transkei and the urban theory, it would appear that the present city-size distribution of South Africa could fit the Transkeian picture in the future.

13.03 Growth points.

13.031 Umtata can be looked upon as the city which will become the most significant city in the Transkei. It is central to the territory, is already the legislative and administrative centre and has potential for industrial development.

13.032 If Port St. Johns is developed as a harbour, it could develop as a medium-sized city as a result of its change of transportation media functions. It is also located in the sub-tropical region and could attract food packing and processing and sea product industries.

13.033 With the development of the base mineral mining industry around Mt. Ayliff, a city could develop around this natural resource and attract industries allied to the mining industry.

13.034 Butterworth is in the main fibre growing area and could thus develop as a city around the various fibre processing and ancilliary industries. As shown in Chapter 9 Butterworth has industrial potential.

We thus have four towns which show prospects as growth points. These will be returned to in section 14.08.

13.04 Other towns.

We now face the problem of whether only these 4 cities should be developed, or whether additional growth points should be created. From the nature of the problem in the Transkei where 98% of the population is rural, it would appear that to promote urbanism attempts should be made to create urban environments wherever possible. At present there are 21 other villages which already have a nucleus of urban amenities. To get a more even spread of towns it appears that additional towns will have to be established - see Map 19. This latter group of towns or cities will basically have to fulfill the role of central places providing services to their immediate surrounding hinterlands. Towns established along the coast could developed as holiday resorts.

13.05 The basic policy should thus be to develop one major city of national importance, viz. Umtata; three cities of large size and sub-national importance, viz. Butterworth, Mt. Ayliff and Port St. Johns; and any number of smaller centres to act as service centres to their surrounding rural areas, making use of existing villages and nodes where possible. All existing villages have adequate commonage which can be taken up when expansion takes place. A policy of decentralisation can thus be followed when the larger cities show signs of over-congestion.

CHAPTER 14

FUTURE INDUSTRIAL LOCATION

14.01 Having postulated the idea of one major city, 3 semi-major cities, and a number of smaller cities, the problem of stimulating their growth remains. As already pointed out in the previous Chapter, industries of some form or other are essential for growth and regeneration. It thus remains to be seen what industries will serve as nuclei in each city, how these are to be encouraged to locate in each city, where their markets will be and what additional infrastructure is essential before development can take place.

14.02 As the Transkei is being considered as a separate state in some respects and as a region of South Africa in other respects - see Chapter 11 - we appear to have two distinct markets: Firstly, there is the local market in the Transkei and secondly the rest of Southern Africa.

14.03 The Transkeian market.

14.031 Agriculture.

As outlined in Chapter 12 there has to be a major break-through in agriculture. Whichever policy is adopted. productivity has to be increased by means of improved farming technology. For this we require large amounts of fertilizers, and materials for building the irrigation schemes. There is thus a large potential market for these requisites and immediate attention can be given to their local manufacture. There will also obviously be an increasing demand for agricultural machinery, and attention can be given to the manufacture of implements and the assembly of components for tractors, harvesters etc. This will not only provide the country with industries, but also accelerate the required agricultural

revolution.

14.032 Mining and industry.

With mining and quarrying and other industries starting up there will be an obvious demand for mining and industrial machinery. A certain proportion of these could be manufactured in the Transkei.

14.033 Transportation equipment.

As new roads are built there will be a greater demand for transportation equipment and again, as with agricultural machinery, there is scope for an assembly plant. As the roads are completed and the urban population grows there will also possibly be scope for the assembly of motor cars or more likely the re-assembly of used cars.

14.034 Building and Construction.

Construction of homes, offices, factories etc. will obviously require large quantities of building materials such as bricks, cement, iron and steel rods; cement mixing and pouring equipment; and plywood and lumber products. There will also be scope for the assembly of construction machinery such as bulldozers, cranes, etc.

14.035 Electricity.

In the electrical field there will also be scope for manufacturing electrical machinery including small transformers, switches, plugs and other industrial and consumer fittings, for use in hydro-electric power production, transmission and consumption.

14.036 Paper.

In all developing industry, commerce, schools

etc. the demand for paper and paper products will obviously increase. There thus is scope for a pulp and paper plus paper products industry in the Transkei. Printing presses will also be needed.

14.037 Food and Clothing.

The Tomlinson Commission[1] estimated that in 1951/52 clothing formed 35.2% of the turnover of traders in the Transkei and Ciskei; groceries formed 22.7% and farm products, (mainly food) formed 27.8%. The three groups together amounted to a spending of about R10 per capita. With an increase in per capita income, these product groups might change in the percentage spending, but will increase absolutely. There is thus an immediate potential for food processing and packaging industries including sugar, coffee and tea, and also for clothing factories. The latter will need textiles, which means that there is also scope for textile mills. With the serious unemployment in the Transkei it does, however, seem preferable to use hand weaving methods of production. These could form part of the hand-craft centres mentioned in Chapter 12.

14.038 Leather industry.

Boots and shoes should have a market.

14.039 Furniture.

There will be a demand for furniture in homes, offices and schools. There is thus scope for both wood and metal furniture production.

14.04 Absorptive capacity.

14.041 Certain manufactures would have an immediate market. Among these would be included fertilizers; farm

implements such as cultivators, hoes, spades, etc.; household utensils such as pots, pans and eating utensils; clothing; and food products. Industries manufacturing these products would thus be import-substitution industries. The scope of the market would have to be determined from product and type surveys of imports. Such industries would have to be subsidised at first and to a certain degree would be designed to create employment. W.A. Lewis[2] feels that creating employment in industry is justified when there is extreme population pressure in the countryside as there is in the Transkei. Here the conventional wage rate for unskilled labour would exceed the marginal product of labour on the land, from which innumerable workers could be drawn.

14.042. The development of the other industries mentioned in 14.03, will depend on the expansion of the sectors with which they are bound: thus the manufacture of mining machinery cannot develop before the mining industry starts moving ahead. The expansion of all consumer type industry will obviously depend on the growth of consumer spending. If gross national product can grow by 5% per annum and population increase can be contained within the 2 to 3% range, then per capita income should grow by between 2 and 3% per annum. This would mean that the R40 per capita income would grow to ± R100 over a period of 30 years. This figure obviously places limits on the market, being only a third of South Africa's per capita income in 1960.

14.05 The Export Market.

14.051 As outlined in Chapter 9 there are certain natural resources which can be developed and processed for export purposes. Market surveys would have to be undertaken before projects are undertaken. As regards mining

operations, Lewis[3] feels that as long as the extraction produces more R than farming the same piece of land would've produced, the mining operation is justified. To earn foreign exchange, the Transkei will have to produce and export raw materials wherever possible. Until such time as it develops its own paper industry, it would be advisable to export as much timber for paper pulp as will not adversely affect future timber production. The South African market should be able to absorb all the surplus production from the fibre industry both in the form of decorticated fibre and its products. The market for sugar, tea, coffee, wool and hides will also have to be investigated. If more textiles are produced than the local clothing industry can use, then these can also be exported.

14.052 The Republican Government is at present following a policy of industrial decentralisation. As discussed in Chapter 11 the Transkeian Government will have to provide subsidies of some description or other in excess of the inducements offered in the decentralisation zones (Border Areas as they are known). The importation of raw materials for processing and re-export will thus only succeed if the Transkei has an absolute advantage over these areas. At present, the only absolute advantage appears to lie in the large supply of unskilled labour; but when once the education program starts bearing fruit there should also be a supply of technicians and of workers who should easily adapt to training, thus providing a core of skilled and semi-skilled labour. If these are concentrated in a few prime locations - the larger urban areas - agglomeration forces could become operative attracting all kinds of industries.

14.06 As a start then, the Transkei will have to concentrate on developing its natural and agricultural resources

primarily for export. At the same time a start will have to be made at creating some import substitution industries in the growth points; these industries might be able to double as export industries. With the start of manufacturing industries, service industries will follow in their wake. Some infrastructure will have to be provided by the Transkeian Government, though. This will be discussed in the next chapter.

14.07 With mutual co-operation between the Transkeian Government and the Republican Government consideration might also be given to establishing industries which will act as a major stimulus to the region. Industries such as oil refineries, iron and steel works and fuel from coal plants are capital-intensive, but have a multiplier effect. Heavy industries are likely to be attracted by an iron and steel works and the range of petro-chemical industries is vast. Whether oil tankers can anchor off Port St. Johns and pump oil ashore to storage tanks would have to be investigated. Such industries as may be injected into the Transkei in this manner will not only attract other industries but also provide employment and increase the spending power of the surrounding areas.

14.08 The pattern could thus develop to something like the following:

14.081 Umtata:

This is the legislative and administrative city and also the capital of the Transkei. As it is also in the centre of the territory it should develop as the major service centre. It also has 4 existing towns and one proposed town, within 30 miles, around it. These towns could thus develop as sattelites of the major city.

There is already a nucleus for a timber industry

in Umtata. It is envisaged that this could develop as a major industry. Major timber plantations are only about 30 miles distant. The wood industry has relatively extensive linkages, since its products can be used for certain kinds of construction, for furniture, for plastics, for pulp and paper, for synthetic fibres, light consumer goods, and prefabricated timber houses.

Being in the centre of the country it is the most readily accessible city. Major transportation routes are already radial from it. All industries, the products of which will be distributed over the whole territory, should thus locate here; under these will be included all assembly plants of agricultural machinery, transportation equipment, construction machinery and eventually the reassembly of used cars. Manufacturing plants of farming implements and household utensils would also fit into this category as will food plants such as the packing of meat products and the manufacture of biscuits, etc., and clothing factories.

14.082 Mt. Ayliff:

This area, if rumour has it correct, can develop as a mining centre (copper and nickel) of importance to Southern Africa. If mining does prove successful here, mining machinery can be manufactured once the mining industry has become established. At a later stage processing of the metals can also take place here. Laboratories and research institutes would also fit into this city.

If the Transkei can come to an agreement with the Republic of South Africa to establish an iron and steel industry in the former country, this industry combined with the mining industry could create the environment for heavy industry to locate in this area. Export would be through Kokstad to

the Durban - Johannesburg rail-line at Pietermaritzburg. It would thus be necessary to extend the rail-line from Kokstad to Mt. Ayliff.

14.083 Port St. Johns:

This being a port city it is an ideal area in which to manufacture materials imported by sea. Although trawling in the Indian Ocean off the Transkeian coast is not considered an economic proposition, other sea products could be processed here. Fertilizer plants would be a great benefit to the required agriculture revolution. Port St. Johns is also in the coastal region which has a potential for the cultivation of sub-tropical fruit and sugar and coffee. Fruit processing factories could be established here and a cane spirit distillation plant. The deposits of builder's marble in the area can also be cut and polished here and exported from the harbour.

The city of Port St. Johns could also develop as an important holiday resort. There are already proposals to link Port Edward (in Natal, just across the Umtamvuna River), where the coastal road from Durban ends at present, with Port St. Johns by means of a "national" road. (It is conceivable that this road could be extended to East London (see Map 19) so making the various recreation areas accessible. This would give the tourist trade in the Transkei a big boost).

If an oil refinery is established here at a later stage, the opportunity for a petro-chemical sector will be created.

14.084 Butterworth:

Butterworth is in the main fibre growing area of

the Transkei. After the fibre has been decorticated factories could manufacture bags, rope, sleeping mats and rope shoes. The latter are supposed to be good for beach wear and could thus be exported to both Durban and East London. Butterworth is the first town across the border from the Cape Province Border Region and is thus, from a transportation cost point of view, the best place to manufacture imported raw materials from this area. By combining skins and hides from the Transkei and the adjoining Border Region, a leather industry could develop here.

14.085 The other towns:

These towns are envisaged as service centres to their immediate hinterland. Repair services for agricultural machinery are essential and should be located here as soon as feasible. Head-quarters of the farming co-operative societies should also be located in these centres as should all dairies, cheese factories and small scale milk processing plants. It is also proposed that employment opportunities be created here for the landless by means of hand-craft centres manufacturing products such as materials from hand looms, hand-woven rugs, pottery, baskets, small furniture such as cane chairs and stools, baskets etc. By locating these in the towns some sort of local market will exist from passing tourists. It is also intended that all post-primary educational institutions should be located here and not in the rural areas. By endowing these centres with a certain amount of infrastructure conditions for later decentralisation from the larger centres when they become congested, will be strengthened. By creating a certain amount of employment opportunities long-distance contract labour will be relieved to a certain degree. The centres will also facilitate the change from a subsistence

way of life to one of urbanism and can help in changing the tribal attitude and outlook of the population.

CHAPTER 15

INFRASTRUCTURE POLICY

The argument about infrastructure has swung from one extreme to the other. Lewis[1] feels that demand and supply should keep in step. Thus it is wrong to let infrastructure lag behind demand; but surplus infrastructure does not possess much power to attract investsments.

15.01 Railways.

The possibility of linking Umtata and Kokstad by rail, thus providing a direct link between the East London - Rand line and the Durban - Rand line, was considered during the late 1930s. However, with the advent of the Second World War all proposals for such a rail line were shelved. If Mt. Ayliff is to develop as a mining and industrial area it seems imperative that the rail line from Natal to Kokstad is extended through to Mt. Ayliff. To facilitate interaction between Mt. Ayliff and the other industrial areas it seems necessary to link Umtata and Mt. Ayliff. This would then provide the link envisaged 30 years ago and would provide adequate transportation facilities for the import and export of heavy goods between Natal and the Transkei. It would also provide a shorter link to the Witwatersrand market. With the development of Port St. Johns as a harbour, a rail link between it and Umtata would add strength to the transportation framework. Road transportation is an alternative to rail transportation, but by the nature of the topography of the Transkei a number of passes are necessary, and road haulage of heavy and bulky objects will obstruct the free flow of traffic on the roads. The main link from Umtata to Kokstad would serve both the Republic of South Africa and the Transkei and could thus be a joint venture.

15.02 Roads.

15.021 Primary:

As shown on Map 15 there is at present only one major road through the Transkei with a second proposed major road. This proposed road along the coast will link Port St. Johns with the Natal South Coast National Road. If this road is extended along the coast from Port St. Johns to East London the whole coast line will be opened up. This would then provide access to the various suggested holiday resorts along the coast. Existing holiday resorts are popular with the adventurous, but the lack of good roads prevents the growth of the tourist trade. The coastal road would also provide transportation facilities for the sugar, coffee and fruit farmers in the coastal region. As it is essential for sugar and coffee to be processed very soon after cropping, good transportation facilities are essential to get the raw produce to the processing plants at centrally located points with a minimum of delay. If fruit canning and alcohol distillation plants locate at Port St. Johns it will also be essential to get the produce there while the fruit is still fresh. The coastal road will thus serve a dual purpose. Primary roads will serve both the Republic of South Africa and the Transkei and should therefore be a joint venture.

15.022 Secondary:

As suggested in Chapter 10 roads are essential in opening up the hinterland as supply and market areas. Linkages between the bigger cities and the towns in their respective hinterlands and between individual towns are thus essential. Raw products can thus reach the major cities easily and manufactured products can be distributed to the service centres for further distribution. They also make

the regional centres with their specialised services readily accessible to their hinterlands. A good network of roads will also facilitate decentralisation when it becomes necessary. Map 19 shows a diagrammatic representation of such a linkage system. Note the possible sattelite towns around Umtata and Butterworth. Secondary roads serve the whole Transkei and are thus the Central and Regional Governments' responsibility.

15.023 Tertiary:

Each district will obviously have to provide roads linking the farming communities with the central village or town. These would be necessary for the farmers to gain access to the services offered by the towns and to get their produce to the town's market and their agricultural co-operatives. These roads should be the responsibility of the District Authorities and the Tribal or Community Authorities.

15.03 Harbours and airports.

As previously stated, it seems essential to develop a harbour at Port St. Johns. Investment in such a project will be lumpy and it will have to be built with adequate excess capacity. However, as it sells its "product" for cash, its later development should tend to keep up with demand, partly because it will raise its own revenue, and partly because influential "consumers" will see to it that its development is not forgotten.

With the advent of the jumbo jet age it will be wise for the Transkei to plan its airport at Umtata with adequate room for expansion to cater for the larger aircraft in future. With industrial and other development taking place at least one airport will be essential in the near future. The air-service could be plugged into the Republic of South Africa's

airservice making Umtata a stop on the flight from East London to Durban.

15.04 Schools.

As pointed out in 7.022 post-primary educational institutions are mostly located in the rural areas and not in the existing villages and towns. To facilitate the transition from the rural to the urban areas it is felt that all future schools of this rank should be located in the villages and towns. Hostels could be attached to these schools to make provision for the children from the rural areas as is already done at some of the high schools in the Transkei and most of the schools in the villages in the Republic of South Africa. If education is to play a major role in changing the attitude of the population, urban ways will make more sense if the schools are located in an urban environment. Primary schools will at first have to be scattered over the whole country - as they are at present - to reach as many of the population as possible. These schools will have to be located centrally to the various peasant villages and communities in the rural areas, and in the urban areas.

15.05 Credit facilities.

As discussed in 7.03 some of the towns already have banking facilities. These will have to be expanded to all the towns so that adequate credit facilities are available to the various service industries and farmers co-operatives in the smaller towns and all businesses wishing to locate in the major cities. If the various merchant banks already operating in the Transkei - with their head-quarters in the Republic of South Africa - are not willing to extend their services, the Transkeian Government will have to undertake

these services. (At present the Bantu Investment Corporation, under the authority of the Department of Bantu Administration of the Republic of South Africa, provides such services on a small scale). Willingness to put one's savings into financial institutions depends on confidence in their integrity. All such institutions - banks, credit unions, insurance companies, building societies and so on - should be regulated by law, and required to submit annual returns. The Transkeian Government will thus be able to control strictly the operations of all savings institutions.

15.06 Electricity.

For industrial development to take place it is essential to ensure a good power supply. Both Mt. Ayliff and Port St. Johns are far removed from any major supply and neither is in the Escom licensed area. It is suggested that the Transkeian Government should try to reach an agreement with Escom whereby electricity is provided by the latter until such time as the Transkei develops its hydro-electric plants. These can then be plugged into the Escom network; in this way Escom will then be able to acquire any excess capacity that the Transkei might produce.

15.07 Civil Service.

A good Civil Service is a crucial part of the infrastructure since the quality of all other public services will depend upon the quality of the Civil Service. Over and above the normal Civil Service functions of running the public service, there falls upon the Civil Servants of an under-developed country like the Transkei most of the task of discovering new natural resources; investigating how they can best be exploited; finding investors for large-scale enter-

prises, teaching small producers how to improve their methods, creating and operating an infrastructure, and instituting and executing a wide range of institutional reforms. A good Civil Service is thus even to some extent a prerequisite of rapid growth. Failure to establish systems of recruitment and promotion based on merit leads to inefficiency; failure to pay competitive salaries leads to corruption; and failure to delineate the respective roles of professional administrators and of party politicians leads to confused decision-making. Planning for development is thus hardly practicable until a country has established a Civil Service capable of implementing the planning.

A perusal of the Annual Report of the Transkeian Public Service Commission, 1967, shows that problems are being encountered in filling vacancies in the professional and technical directions. The report adds:

> ".....it is essential for the legislature, departments and the public to realise that the present level of government activity in the Transkei is tapping the supply of suitable candidates virtually to the limit in the clerical and administrative fields and certainly outstripping it in so far as professional officers, artisans and technicians are concerned. Quite aside from fiscal limitations, therefore, projected expansions of government services must, for the foreseeable future, be related to the Transkei's personnel potential, failing which the importation of further Republican officers must be considered a distinct possibility".

The Transkei would thus be wise to follow the policy of most West African States[2] where Africanisation of political posts took place after independence leaving administrative and particularly professional and technical posts

in the hands of expatriate Europeans.

15.08 Special services.

It seems essential that departments concerned with discovering new resources, or discovering better ways of utilising known resources, such as the departments of Survey, Geology and Soil Survey should be established. In this way geologists may find useful building materials, including materials for making cement. Equally important are research departments especially in the agricultural department, and industrial, economic and housing research departments. As housing plays a major role in the urbanisation of the population, it is essential for local building materials including clays to be fully investigated.

15.09 Social services.

The most important of these at this stage would be public health. However, by making more medical facilities available the death-rate is likely to drop enabling a higher rate of population natural increase. As population pressure is already a problem in the Transkei, it is felt that the public health service could provide information and lectures etc. concerning population control.

CHAPTER 16

EDUCATION POLICY

"Education does not have to be productive in order to justify itself; it is valuable for its own sake, and when compared with other consumption expenditure, giving young people more education is just as valuable as giving them gramophones"[1].

16.01 The need for priorities.

However, in an underdeveloped country such as the Transkei, where in 1960 only 6% of the Bantu population had passed standard 6 (of which 1% had studied further to pass the Junion Certificate) and 63% were completely illiterate (see Table 9), the education policy should obviously be tailored to suit the needs of the country.

16.02 Cost of education.

Poor countries such as the Transkei cannot afford to pay for as much education as richer countries. They have therefore to establish priorities in terms of both quality and quantity. The cost of education is higher in underdeveloped countries for two reasons. Firstly, because of the higher birth-rate, the school-age population is relatively larger than that of developed countries: the school-going population aged 5 to 14 is only 15%[2] of the total population of a country like Great Britain whereas in the Transkei it was 24% of the de jure population in 1960. Secondly, because of the relative scarcity of educated people in the Transkei, the ratio of a teacher's salary to per capita national income is much higher. (Per capita national income in 1960 was estimated at R40 - see section 6.091 - whereas the average income for teachers in the Transkei was R780 per annum in 1968[3]). Lewis[4] thus

estimates that whereas universal primary education costs a rich country less than 1% of national income, it would cost a poor country from 2% to 4% of national income.

16.03 Education and Economic Development.

It is thus essential to tailor the education policy to fit the country's requirements. Lewis[5] finds that for planning purposes the best relationship between economic activity (or development) and education is to be found in estimating the education requirements for each industry. Thus a table can be drawn up showing percentages of workers needing various standards of education. By the year 2000 only 30% of the Transkeian population should be occupied in agriculture; this is the same figure as that for South Africa as a whole in 1960. Thus the assumption is being made that the industrial breakdown in the Transkei in the year 2000 will be the same as that of South Africa in 1960. As the Transkei's mining industry cannot, with present knowledge, develop to such an extent as South Africa's allowance has been made for a far lower percentage here, manufacturing and commerce being given the percentage subtracted from the mining sector. This should give some estimate of the scale of numbers required to attain the various educational standards.

16.04 Standards required.

By applying Lewis's table for Jamaica (1963)[6], which Lewis estimates is twice as high as that for most African states but only a third as high as standards required in Europe, we arrive at Table 15. The Transkei thus needs approximately 22,000 university graduates, about 120,000 with a high school education, and about 95,000 skilled workers. (The latter are classified as people with a primary school

education plus at least one year's special training or apprenticeship). As university graduates also have to pass high school, it would mean that ± 140,000 would have to finish high school and remain in the ranks of the employed by the end of the century. Allowing for a 5 to 10 per cent wastage factor we would need approximately 150,000 to pass high school and about 100,000 plus the 150,000 to pass primary school or standard 6.

16.05 Primary schools.

At present (1966) there are roughly 15,000 in Standard 6, with a pass rate of between 50% and 60%[7]. Accepting the lower pass rate of 50% we get 7,500 per annum and extending this for 34 years to the year 2000, the primary schools at no expansion rate and with no increased pass rate will produce 255,000 with Standard six certificates. This is slightly higher than the 250,000 required. For the minimum number required for economic development the primary schools thus need no expansion if we accept that enough of those who pass will go on to high school.

16.06 High Schools.

As Table 10 indicates, the number of pupils in Form 1 (1st year of high school) is only between 30% and 40% of the previous year's Standard 6 pupils. Accepting a 50% to 60% pass at the end of Standard 6 and an 80% pass in Form 1 this means that about 40% of those who pass Standard 6 do not enter high school. The drop-out between Form 3 (Junior Certificate or J.C.) and Form 4 (first year of Matric) is even more marked; Form 4 is only between 20 and 25 per cent as large as the previous year's Form 3. With a 75% pass figure for Form 3[8] and an estimated 80% pass figure for Form 4, this

means that at least 70% of those who pass J.C. do not study further.

16.061 Junior Certificate.

At present roughly 1,250 pass J.C. each year[9]. The average annual increase in the size of J.C. classes from 1964 to 1966 was 8%, with the provisional figures for 1967 showing a jump of 27% from 1966 to 1967 - see Table 10. Thus accepting an annual increase of 10% and projecting the 1,250 of 1966 to the year 2000, we find that roughly 340,000 will have passed J.C. by then. This figure is more than twice that required to pass matric. Thus if 45% of those who pass J.C. go on to pass matric the country will have produced its 150,000 matriculants.

16.062 Matric.

However, at present the matric pass number is only 10% of the J.C. pass number two years earlier[10]. The present percentage increase in the number of pupils in matric is only about 2% per annum. Projecting the figure of 118 matric passes for 34 years to the year 2000 at an increase of 2% per annum the number who will have passed matric is only about 6,000, or about 4% of what is required. It is thus essential to increase the number of pupils in matric and also the pass rate - at present 50%[11].

16.07 Universities.

As calculated in Table 15, at least 22,000 University graduates are also required. Obviously these must first pass matric and if the economy is going to absorb all matriculants as soon as they have left school, university training in the Transkei is going to be exceptionally proble-

matic. As something like 700 per annum are required for the next 30 years, it seems apparent that the first graduates will have to come from outside the Transkei's borders. Until such time as the Transkei produces enough potential students to warrant the establishment of a university, it would prove far less costly to use university facilities outside the Transkei's borders, particularly as most of the staff for a university in the Transkei will have to be brought in from outside by means of large inducement allowances.

16.08 Long-term Policy.

As pointed out in 6.084 the long-term policy should be directed towards universal education. Giving the country just over 30 years to reach this aim, it was found that at least 1,000 teachers and 1,000 additional class-rooms were required annually; this would mean that a third of the estimated population was at school and that there were 30 pupils in each class. The period of 30 years is suggested as far more practical than attempting the impossible in 10 years.

16.09 The Priorities.

It remains to find out what types of education should be treated as priorities. As pointed out in 15.07 there is already an acute shortage of trained technicians in government service - and government service is virtually the only employment market for technicians in the Transkei. From conversations with government officers in the Transkei I gained the impression that technical subjects are not popular in the schools and that mathematics is avoided whenever possible. The careers which appeal to most of the youth appear to be those of lawyer, teacher or clerk in the civil service as these have the highest social prestige. This pattern seems

to be a familiar one in other African states: "Africa's primary need is for doctors, engineers, scientists, agricultural experts, not for lawyers and literary critics"[12] - a reference to the distribution of students at various universities in West Africa. Technical and vocational training must play an important part in the development of the Transkei as most attempts to increase productivity involve either machinery or the application of scientific knowledge, i.e. Technicians. We thus need a vast multiplication of the facilities of technical training. These need not always be institutional as facilities for apprenticeship and inservice training are just as important. To achieve the change of outlook required to accept the social status of the technically trained, it seems imperative that the financial remuneration of technicians must be upgraded; and more generous scholarships and bursaries than those granted to arts students will have to be offered to prospective technicians, i.e. an added inducement.

The priorities thus seem to be:

<u>firstly</u>, a long-term policy towards universal education;

<u>secondly</u>, the secondary school has priority over the primary school and the university;

<u>thirdly</u>, there cannot be too many technicians, engineers or scientists; and

<u>fourthly</u>, adult education is essential for increased agricultural productivity (see 12.054(a)).

16.10 The Policy.

The education policy must thus be directed towards:

firstly, creating the necessary facilities such as sufficient schools, training colleges, and sufficient teachers with the necessary training particularly as regards the secondary schools and technical colleges;

secondly, concentrating additional facilities in post-primary and technical education to bring about the required revolution in these branches of the education field, including scholarships and bursaries;

thirdly, creating an awareness of the technical environment from the first year at school and encouraging more pupils to take an interest in technical education by the creation of technical colleges and increased bursaries, etc.; and

fourthly, creating adult education facilities both in the urban and rural areas as literacy is liable to ease the task of those giving instruction in population control and of the agricultural instructors.

CHAPTER 17

CAPITAL, SKILLS AND ENTERPRISE

To carry out any of the proposed policies the Transkei is going to require an enormous amount of capital, skills and entrepeneurial ability. It is thus pertinent to make a few brief comments as to how these can be obtained.

17.01 Capital.

Raising the rate of investment is of the utmost importance to the Transkei, as the rate of investment will place a limit not only on the degree of technological progress the country will be able to achieve, but also on the expansion of vital social services such as education, and on the expansion of additional infrastructure such as roads. Briefly, there appear to be four ways in which the rate of investment can be raised.

17.011 Mobilisation of disguised unemployment.

One way of raising the investment rate is to attempt to mobilise the unemployed or disguised unemployed workers and put them to work on various capital projects such as constructing roads, irrigation ditches, dams and the like. The advantage of this method is that it makes possible increasing investment without actually cutting into production or consumption. The disadvantage is that it is difficult to mobilise rural workers; they also require tools and managers both of which are already in short supply. It is, however, a method which not only gives employment to the unemployed but also raises the hopes that there is at least some contribution that these workers can make towards the development of the country.

17.012 Increased Taxation.

By taxation the government takes away part of the country's resources and either makes them available to private investors or engages in capital construction projects of its own. Some attempt will have to be made to raise the general level of tax collections if investment is to be increased. In his budget speech for 1968 - 1969 the prime minister also points to the number of citizens who still manage to completely avoid paying their taxes. The method of collection will thus also have to be streamlined. Taxation does of course have its limits and difficulties. Taxes may have adverse effects on incentives: to grant a tax holiday to industrialists might be an incentive to make them locate in the Transkei, but this means that a valuable source of revenue is being lost. The added income such industries place in the hands of the workers can however be taxed thus providing some extra taxation. Taxes on the poor are also limited and with a per capita income of ± R40 the taxation rate cannot be raised much above the present level of between R1 and R1.50 per capita. A sophisticated tax system also will require skills and capital inputs and is best forgotten about until such time as it will show more benefit than cost. It is also difficult to tax farmers accurately, especially in a subsistence type economy where much of the production never reaches the market. The system whereby the population is taxed by means of a general levy or poll tax thus seems to have certain merits; and as income and the number of children is normally inversely prop r-tional, it seems fair that those with more children should pay a relatively higher proportion of their earnings in taxes.

17.013 Inflation.

Faced with the difficulties of taxation, the

Transkeian Government can simply decide to increase its investment spending without increasing taxes. In this case, inflation becomes the mechanism for capital formation. Spending increases, prices rise, the consumer's rand declines in real value, and the physical consumption of the community is curtailed. This method has the virtue not only of being easy to apply but also of providing a stimulus to private investment. Prices are rising, profits generally high and the economy is moving upward - the right time to expand plant and equipment. The trouble with this method is that the inflation may turn into a major inflation which might distort the pattern of capital formation and turn into speculative channels. The Transkei may also find that it is losing its foreign markets and thus the wherewithal to import the industrial products and capital goods necessary to its development efforts. The danger of a cumulative upward spiral of wages and prices thus makes inflation a limited, and always slightly perilous, method of capital accumulation.

In each case, then, we find certain advantages but also definite limits to any given method of raising the rate of investment. The over-all result is likely to be that all methods together will still produce an insufficient achievement. Taxes are hard to raise, the unemployed are difficult to mobilise, and inflation runs the danger of becoming chronic. The Transkei will thus find that the gap between what seems necessary and what has been accomplished remains a large one.

17.014 Foreign Aid.

It is here that the role of foreign aid becomes such a critical one. The Republic of South Africa, as the ex-colonial power, already provides the Transkeian Government with about 75% of its revenue. This amount of between ten

and fifteen million rand per annum is only sufficient to keep things going and does not provide anything near the required cost of even providing subsidies for industries. The Transkei, like all other underdeveloped countries, will have to seek massive foreign aid loans or grants. If the Transkei is to be treated partly as an independent state and partly as a region of South Africa, the Republic of South Africa is obviously going to have to bear the brunt of this burden. To protect its interests in the Transkei, the Republic of South Africa is not going to feel well-disposed towards allowing other countries an advantage in the Transkei.

17.02 Skills.

As the analysis of the occupation structure (see 6.07) showed, there is virtually no pool of skilled labour in the Transkei. The 1967 Report of the Public Service Commission[1] also reveals that the "present level of governmental activity in the Transkei is tapping the supply of suitable candidates virtually to the limit in the clerical and administrative fields and certainly outstripping it in so far as professional officers, artisans and technicians are concerned". No labour pool thus remains for commerce and industry. The education policy makes provision for the training of skilled labour both in institutions and on the job, and for the provision of teachers; but employment opportunities must exist before on the job training can be given, and teachers are necessary to teach those who are to become teachers. The Transkei, like the majority of African States, will thus have to resort to importing its initial core of professional and technical labour. If foreign industrial concerns locate in the Transkei, one of the subsidies that will have to be provided will be that for inducement wages and salaries for skilled

and professional workers. It would thus appear that the present policy of repatriating expatriate Republican citizens employed in the Transkeian civil service, should be reversed and that as many of these officers as possible should be retained, so adding to the core of trained personnel.

17.03 Entrepeneurs.

Entrepeneurs are those men who possess the drive, ambition, foresight, and imagination to break through traditional barriers, overcome social inertia, and transform theory into practice. They are thus essential for any industrial development; but basically they are products of industrial development so that an economy with 1,000 plants is likely to produce about ten times as many managers as an economy with 100 plants[2]. However, it has been asserted that enterprise is "a by-product of the process of development, and has seldom been found wanting in a society favourable to its exercise"[3]. According to Hirschman[4] Pakistan and Latin America have afforded ample examples that "a reserve army" of entrepeneurs may be hidden in any under-developed country. It can thus be accepted that the local inhabitants of the Transkei will soon follow the example of the more experienced expatriates in entering the entrepeneurial field when the opportunities audibly knock at the door. Lack of experience may cause a relatively high failure rate during the initial stages, but institutions such as the Xhosa Development Corporation are trying to help overcome such teething troubles. The Transkei should also follow a policy whereby foreign entrepeneurs will be allowed to locate in the Transkei; in fact, if they are going to allow foreign technicians and professional workers in, entrepeneurs would fit into the same scheme. Agreements as to what percentage of profits would be allowed to leave the

country would have to be drawn up.

It thus seems essential that much of the initial capital, skills and maybe enterprise will have to come from foreign sources. By treating the Transkei partly as a region of South Africa, the Republic of South Africa will most likely be called upon to provide the major share.

CHAPTER 18

THE PATTERN OF DEVELOPMENT

18.01 The Problem.

In Chapter 10 the problem was defined as being basically a social problem. The attitude of the people does not create an environment conducive to economic development. Although the agricultural potential is there, productivity per morgen and per person was found to be low. With 98% of the population living in the non-urban areas and 85% of the economically active population being engaged in agriculture there is over-crowding on the land and extremely low per capita income. The standard of education was found to be low, and 63% of the population - as opposed to a normal 15% - was found to have had no formal education. As there are virtually no employment opportunities other than in subsistence farming, about 50% of the able-bodied males were found to be absent from the territory as "contract" labourers at any given time. Their dependants remain in the Transkei. Part of the family income thus comes from subsistence farming and part from transfers from the migrant labourers.

18.02 State versus Region.

In Chapter 11 it was shown that development could be induced in the Transkei by treating it partly as an independant state and partly as a region of South Africa. Briefly, unfavourable effects will be far less damaging to a country than to a region, whereas favourable effects will trickle down to a region more readily than to a separate country. If the Transkei is thus treated partly as a region and partly as a country it should be possible to develop the economy to the best advantage.

18.03 Farm-land.

In Chapter 12 it was pointed out that a farm policy for the Transkei would require two basic aims: firstly, a true farming class will have to be established in place of the subsistence plus migrant labour system; and secondly, productivity will have to be increased. Farm-land should be divided into settlements; these in turn should be divided into two broad groupings: Group A settlements will accommodate those who wish to become full-time farmers on units large enough to provide an adequate income, but small enough for a man and his family to farm without recourse to hired labour; Group B settlements will accommodate those people who do not wish to become full-time farmers, families gaining their income partly from subsistence farming, partly from long-distance migration and partly from employment opportunities to be created in the Transkeian cities and towns. Group B settlements should be transitional; as enough work opportunities become available in the Transkeian industrial areas, families, and particularly the younger generation, should migrate to them on a permanent basis. To decrease the length of the period of temporary migration on contract it was suggested that the Group B settlements be located around the future industrial areas; if located within 25 miles of such an industrial area, workers should be able to commute daily. Group A settlements should be located in the true rural areas - except settlements set aside as irrigation areas and cash-crop-growing areas which will be located where the topography and climate are most suitable. An increase in farm productivity will be stimulated by firstly releasing population and stock pressure on the Group A settlements, and secondly by the "normal" methods of experimental farms, demonstration lands, extension officers, model farms in the settlements, lectures and adult education schemes; finally

the farmers should be urged to form co-operative societies which will make large-scale implements available on a co-operative basis and will also help in finding markets for produce, using surplus milk for cheese and butter-factories, provide loans and credit, and make agricultural requisites available at a lower price. The land-tenure system will provide security of title by means of long-term renewable leases except on the Group B settlements whose temporary nature suggests short-term leases.

18.04 The Development of Industry.

Scale-economies, localisation economies and urbanisation economies suggest that industries should be concentrated in a few large cities. Alternate forms of employment will be provided in these areas. The analysis of potential industrial areas in Chapter 9, given the present infrastructure, suggested Umtata, Butterworth and Idutywa as the most likely growth points. If the base mineral deposits around Mt. Ayliff can be developed profitably and if Port St. Johns is developed as a harbour, these two "cities" should also serve as future growth points when once sufficient infrastructure has been provided - see Chapters 15 and 16. In Chapter 14 the present and future Transkeian market and the export market were analysed with the view to establishing industries in the Transkei. It was suggested that Umtata, the legislative and administrative capital of the country, could concentrate on the timber industry with its extensive linkages; on assembly plants, on the manufacture of farm implements, household utensils, on food processing plants and on clothing factories due to its central position and accessibility. If mining proves successful at Mt. Ayliff, mining machinery could be manufactured there. If the Republic of South Africa and the Transkei can come to an agreement about an iron and steel industry, this could also be located at

Mt. Ayliff providing an environment for heavy industry. Export would be through Kokstad to the Durban - Johannesburg rail line at Pietermaritzburg. Port St. Johns, the suggested port city, would be the ideal location for manufacturing materials imported by sea. Sea products could also be processed (e.g. fertilizer) as could the agricultural products produced in the coastal region. Port St. Johns also has the potential for developing as a holiday resort. Butterworth is located in the main fibre producing region and could attract factories manufacturing bags, rope, sleeping mats and other fibre products. By combining skins and hides from the Transkei and the adjoining Border Region, a leather industry could also develop here. The other towns and villages in the Transkei will act as service centres to their hinterlands and provide employment opportunities in the form of hand-craft centres. Secondary schools should also be located here instead of in the rural areas. By endowing these towns with a certain amount of infrastructure, later decentralisation from the large cities will be facilitated.

18.05 Capital, Skills and Enterprise.

In Chapter 17 a few brief comments were made concerning the acquisition of these crucial factors. To increase the rate of investment four possible methods were suggested, viz. mobilisation of disguised unemployment, increased taxation, inflation and foreign aid. The latter seemed to be the most feasible method of approach, and the Republic of South Africa as the ex-colonial power and to protect its own interests, will most likely have to provide the bulk of this aid. The Transkei will have to import its initial core of professional and technical labour; later the education program should make sufficient labour in this category available - see Chapter 16. Enterprise can be considered as a by-product of

development and should not be found wanting in a society favourable to its exercise. Initially, however, most entrepeneurs are likely to be "foreign". Much of the capital, skills and even enterprise will thus come from foreign sources - mostly from the Republic of South Africa if the Transkei is treated partly as a region of South Africa.

18.06 The Physical Pattern.

Map 20 is a diagrammatic representation of the possible physical pattern of development. Areas which are steeper than 1 in 12 have been excluded: they will basically only be suitable for stock grazing and forestry. The coastal region and all other special farm areas have been set aside for project farming; full-time farmers will be located in these areas. The major State plantations have been indicated and excluded as have mineral deposits. Group B settlements have been placed within a radius of 25 miles from the four proposed principal urban or industrial areas. Where Group B areas conflict with any of the special project areas, the latter have preference. The rest of the Transkei will contain the Group A full-time farming areas. Existing towns remain where they are and additional towns are suggested as indicated; those along the coast have been located in the potential recreation areas where existing nuclei exist.

The transitional nature of the Group B settlements around the main urban areas allows scope for redevelopment or expansion of those urban areas. By the time the urban areas can cater for large resident populations positive inducement mechanisms might have to be brought to bear on those families who still live on these settlements but obtain their income from the urban areas from "migratory" labour. If all private housing on the settlements is limited to the usual Transkei huts,

those who are able and who wish to build more permanent structures will have to make the move to the urban areas. By gradually decreasing the allowable distance of money transfers from the main urban areas to families on the settlements, families are also likely to relocate around the employment centres. By regulating the renewal of leases in the full-time farming areas in such a way that occupation of the land is granted only if all arable land is used productively, an opportunity will be granted to those who wish to consolidate a number of peasant holdings into large-scale farms when the economic climate demands this type of farming. Displaced farmers will have to migrate on a permanent basis to the urban areas. This will ensure that all farm-land is used productively and make possible the phasing of the urbanisation of the population, taking into account potential changes of related economic location patterns.

18.07 Conclusions.

It would thus seem that the broad goals of increasing per capita income, raising the standard of living and providing alternate forms of employment can only be achieved by planning and effort. Development will not take place unless the atmosphere for development is created. By making enough land with security of title available for full-time farmers, conditions for increased productivity from the farm sector will be created. By endowing the main urban centres with enough infrastructe and strengthening the links with the outside world an environment for industrial development can be created if sufficient inducements are granted to the industrialists and sufficient skilled labour is made available. A vigorous education program is thus essential. The development of industries in strategically located centres will provide the

alternate forms of employment required by those not finding themselves full-time farmers and particularly by the rising generation who will have a certain amount of formal education. By providing temporary or transitional settlements where incomes come partly from the land and partly from industrial employment, urbanisation can be phased to keep pace with economic development patterns.

Planning proposals and policies mean little or nothing if they are not implemented. The State and its civil service thus have an important role to play. Relocation of a large proportion of the population will require extreme tact and patience. Implementation of the land-settlement policy will thus be difficult. It is, however, felt that it is most essential, as without increased agricultural productivity all other economic development is virtually impossible.

APPENDIX 1

LIST OF TABLES

TABLE 1.

TRANSKEI : BANTU POPULATION, 1946 - 2000.

Particulars	1946[a]	1951[a]	1960[a]	1970	1985	2000
Total :						
De Facto[b]	1,250,800	1,269,300	1,407,800			
Temp. absent	177,000[c]	183,800[d]	208,000[d]			
De jure	1,427,800[e]	1,453,100[e]	1,615,800[e]	1,990,000[f]	2,717,000[f]	3,710,000[f]
Males :						
De facto[b]	528,800	532,900	591,500			
Temp. absent	169,000[c]	175,000[d]	195,700[d]			
De jure	697,800[e]	707,900[e]	787,200[e]	969,500[f]	1,323,700[f]	1,807,500[f]
Females :						
De facto[b]	722,000	736,400	816,400			
Temp. absent	8,000[c]	8,800[d]	12,200[d]			
De jure	730,000[e]	745,200[e]	828,600[e]	1,020,500[f]	1,393,300[f]	1,902,500[f]

Notes and Sources :
(a) All figures refer to dates of population censuses in respective years.
(b) Actually enumerated in the Transkei.
(c) Estimated by Tomlinson Commission (See Ch. 13, p. 9, of full report).
(d) Dr. G.M.E. Leistner's estimate : Africa Institute Bulletin, August, 1966, p. 174.
(e) Those in continuous employment outside the Transkei, are omitted.
(f) My estimate, based on a closed region with total population increase of 2.1 % p.a.

TABLE 2.

TRANSKEI : DENSITY PER SQUARE MILE.

District.	1951	1964	Increase	% Increase
Bizana	86	124	38	44
Butterworth	101	111	10	10
Cala	58	71	13	22
Cofimvaba	96	112	16	17
Elliotdale	122	124	2	2
Engcobe	74	78	4	5
Flagstaff	105	146	39	37
Idutywa	83	95	12	14
Kentani	111	145	34	31
Libode	80	93	13	16
Lusikisiki	86	108	22	26
Matatiele	44	72	28	64
Mt. Ayliff	79	95	16	20
Mt. Fletcher	47	61	14	30
Mt. Frere	70	83	13	19
Mqanduli	99	118	19	19
Ngqeleni	98	99	1	1
Nqamakwe	100	109	9	9
Port St. Johns	69	124	55	80
Qumbu	83	99	16	19
Tabankulu	99	108	9	9
Tsolo	66	77	11	17
Tsomo	81	91	10	12
Umtata	82	100	18	22
Umzimkulu	53	74	21	40
Willowvale	117	123	6	5
	82	98	20	20

Source : 1951. Tomlinson Comssission (Full report Ch. 12)
1964 Transkei Dept. of Agriculture & Forestry, Annual Report 1964 - 1965

Notes : 1) All land not controlled by the Transkein Government has been excluded for the purpose of computing densities.
2) De facto population figures were used.

TABLE 3.

Source : Pop. Census 6th Sept., 1960 Vol.1 R.P. No. 62/1963.

	Urban.	Rural.	Males per 100 Females.
Bizana	720	67,077	77
Butterworth	2,367	30,040	75
Cala	2,257	24,860	76
Cofimvaba	766	62,793	68
Elliotdale	396	37,412	69
Engcobe	1,159	80,563	70
Flagstaff	626	52,852	74
Idutywa	1,308	43,086	69
Kentani	296	52,616	68
Libode	442	48,528	74
Lusikisiki	851	91,989	92
Matatiele [1)]	3,251	67,987	71
Mt. Ayliff	675	29,245	70
Mt. Fletcher	641	52,732	73
Mt. Frere	1,335	58,133	67
Mqanduli	385	55,359	71
Ngqeleni	399	62,347	72
Nqamakwe	287	50,572	72
Port St. Johns	1,172	28,193	76
Qumbu	701	51,807	68
Tabankulu	619	58,402	71
Tsolo	948	47,647	69
Tsomo	364	37,247	70
Umtata	12,221	58,716	74
Umzimkulu	1,038	66,028	67
Willowvale	560	65,838	70

1) The town of Matatiele plus 470 of the 1,296 square miles of the district are excluded from the Transkei.

TABLE 4.

NUMBER OF MIGRANT LABOURERS.

1964	242,000
1965	257,000
1966	278,093
1967	250,294

Source : The Annual of the Transkeian Government, 1966 - 68.

TABLE 5.

BANTU : INDUSTRY DIVISIONS, 1960.

	R.S.A. %	Transk. %	R.S.A. %	Transk %
Agriculture	13.3	18.8	37.4	84.5
Mining	4.9	0.2	13.9	0.8
Manufacturing	2.9	0.1	8.3	0.6
Construction	1.5	0.2	4.2	0.9
Electricity	0.2	0.0	0.7	0.1
Commerce	1.5	0.2	4.1	0.9
Transport	0.7	0.1	1.8	0.4
Services	7.5	1.6	21.0	7.3
Unemployed	3.1	1.0	8.6	4.6
Total Ec. Active	35.5	22.2	100.0	100.0
Number Ec. Active	3.9 mill	308,624	3.9 mill	308.624

Source : Pop. Census, 1960, Sample Tabulation No. 5.

TABLE 6.

Bantu : Major Occupation Groups, 1960.

	Male.		Female.	
	R.S.A. %	Transk. %	R.S.A. %	Transk. %
Professional, technical	0.8	1.3	3.1	6.5
Administrative, executive	0.1	0.3	0.0	0.1
Clerical worker	0.6	0.2	0.1	0.1
Sales Worker	0.8	0.4	0.4	0.3
Farmer, fisherman, lumberman (1)	43.4	87.4	18.3	71.9
Miner, quarryman (2)	0.1	0.1	0.0	0.0
Transport worker	2.1	0.5	0.0	0.0
Production worker	2.2	0.6	1.0	0.1
Production labourer (3)	37.7	5.0	1.7	0.3
Service worker	2.5	0.4	3.9	0.3
Domestic service worker	4.5	1.2	57.9	17.7
No occupation stated	5.2	2.6	13.6	2.7
Total	100.0	100.0	100.0	100.0
% economically active	55.7	43.7	15.1	6.8

Source : Pop. Census, 1960. Sample Tabulation No. 5.

1) Includes farm labourer)
2) Excludes mine labourer) R.S.A. includes the Transkei.
3) Includes mine labourer.)

TABLE 7.

Bantu : Cape Province, [1] 1960.

Nurse, nursing aid, etc.	14.1	33.4
Teacher, instructor	61.3	63.2
Other	24.6	3.4
Tot. Prof. & technical	100.0	100.0

Source : As above.

1) In 1960 the Transkei was part of the Cape Province of the R.S.A.

TABLE 8.

UNSKILLED LABOUR BY INDUSTRY DIVISION, 1967.

Agriculture, Forestry and Fishing		7.6 %
Mining and Quarrying		1.6 %
Manufacturing		2.3 %
Construction		1.6 %
Commerce and Finance		10.6 %
Transport		3.0 %
Services (excluding domestic)		50.4 %
Domestic Services		22.9 %
Total Number :	41,236 :	100.0 %

Source : Department of the Interior (Transkei)
Statistical Labour Report (1967) p. 4

TABLE 9.

TRANSKEI, 1960.

Highest School Standard passed
and Diploma and/or Degree obtained.

Education :	Bantu	%	Coloured	%	White	%
None	879,439	63	4,226	31	2,672	15
Sub A & B	86,060	6	1,251	9		
Std. 1	64,096	5				
Std. 2	76,822	6	1,972	14		
Std. 3	72,668	5				
Std. 4	69,183	5	2,745	20		
Std. 5	46,890	3	1,459	11	3,551 [1]	20
Std. 6			1,508	11		
Std. 7	62,655	5	225	2	4,248	24
Std. 8			252	2	2,924	17
Std. 9	14,138	1	48	0	702	4
Std. 10	1,910	0	87	0	3,032	17
Diploma	Not known		Not known		1,507	9
Degree	"		"		418	2
Both	"		"		89	0
Population	1,387,692		13,840		17,514	

Source : Compiled from Population Census, 1960.
Sample Tabulation No. 7 (Level of Education).

Notes: 1) This figure refers to up to Standard 5.
2) Percentages do not total to 100% as unspecified figures have been omitted.
3) Diploma and Degree figures are also included in Standard 10 figures.
4) The above population figures include the "White" areas of Matatiele, Mt. Currie and Port St. Johns, as they refer to Ec. Regions 20 and 21.

TABLE 10.

TRANSKEI : BANTU EDUCATION.

Standard:	Number of Pupils.			
	1964	1965	1966	1967
Sub. A	75,597	87,268	96,997	
Sub. B	47,152	48,667	54,830	
Std. 1	44,132	43,946	48,019	
Std. 2	35,815	34,802	36,326	
Std. 3	26,783	28,418	30,984	
Std. 4	19,845	19,901	22,177	
Std. 5	15.140	15,225	16,979	
Std. 6	13,955	13,245	14,598	
Form 1	3,934	4,203	5,386	5,295
Form 2	2,875	2,997	3,879	4,780
Form 3	1,876	1,772	2,207	2,846
Form 4	412	432	400	541
Form 5	218	222	233	254
Total	287,734	301,098	333,015	

Source : Transkeian Government, Dept. of Education.

TABLE 11.

MAIZE PRODUCTION PER MORGEN : TRANSKEI.

(200 lb. bags.)

	East Griqualand	Tembuland	Transkei Proper	Pondoland
1954	1.7	2.2	2.9	1.7
1955	1.9	1.7	1.7	2.1
1956	1.1	0.9	1.0	0.7
1957	2.7	3.6	3.8	3.9
1958	1.3	1.5	1.9	2.9
1959	1.9	2.7	2.9	3.6
1960	1.4	2.3	1.3	3.0
1961	1.7	2.1	2.3	3.6
1962	3.1	2.5	2.4	4.3
1963	3.6	2.1	2.6	4.0
1964	2.4	2.0	2.1	4.3

Source : Professor Gilbert L. Rutman : The Transkei : An experiment in Economic Separation. The South African Journal of Economics, March, 1968. p. 27.

TABLE 12.

TRANSKEI : STOCK CENSUS.

Animal.	30/6/1953[a)]	30/6/1965[b)]	30/6/1966[b)]	30/6/1967[b)]
Cattle	1,360,212	1,392,263	1,355,739	1,334,182
Sheep	2,269,164	2,010,854	2,029,714	2,324,117
Goats	1,056,430	1,058,786	1,061,525	1,117,172
Equines	113,245	119,191	118,409	115,785
Pigs	256,975	321,243	363,460	431,058
Poultry	1,231,781	1,900,712	4,027,294	4,082,800

a) Summary of the Report of the Commission for the Socio-Economic Development of the Bantu Areas within the Union of South Africa. U.G. 61/1955 p.79.

b) Transkei Department of Agriculture and Forestry. Annual Report 1966 - 1967, p.45.

TABLE 13.

INDUSTRIAL POTENTIAL.

Towns with more than 1,000 persons.	Facilities.					
	Power	Water	Rail	Roads	Tele. Com.	Total
Umtata	1	1	1	1	1	5
Butterworth	1	1	1	1	1	5
Cala	½ a)	1	½ b)	1	1	4
Mt. Frere	0	1	0	1	1	3
Idutywa	1	1	1	1	1	5
Port St. Johns	0	1	0	1	1	3
Engcobo	½ a)	1	0	1	1	3½
Umzimkulu	0	1	½ b)	1	1	3½

Notes : a) Within the Escom licenced area.
b) Within 5 miles of a rail line.

TABLE 14.

INDUSTRY DIVISIONS.

Industry Div.	S.A. 1960.	Transkei 1960	Transkei 2000	Transkei 2000 A.D.
	%	%	%	Numbers.
Agriculture	30	84	30	400,680
Mining and Q.	11	1	1	13,356
Manufacturing	11	1	14	186,984
Construction	5	1	5	66,780
Electricity	1	0	1	13,356
Commerce and Fin.	9	1	13	173,628
Transport	4	0	4	53,424
Services	22	7	22	293,832
Unempl. & Unspec.	8	5	10	133,560
Econom. active	36	22	36	1,335,600
			Total Pop:	3,710,000

TABLE 15.

EDUCATION REQUIREMENTS.

Industry	University		Secondary		Skilled	
	%	Number.	%	Number.	%	Number.
Agriculture	0.4	800	1.3	5,200	1.8	7,200
Mining	4.0	520	10.0	1,400	25.0	3,300
Manufacturing	3.0	5,610	8.0	14,960	20.0	37,400
Construction	0.2	140	1.7	1,140	50.0	33,400
Transport	1.5	990	6.0	3,960	10.0	6,600
Commerce	1.5	2,610	11.0	19,140	1.0	1,700
Services	4.0	11,760	25.0	73,500	2.0	5,800
Total	1.9	22,430	10.0	119,300	8.0	95,400

APPENDIX 2

LIST OF DIAGRAMS

1. Transkei: Bantu Population, 1960.

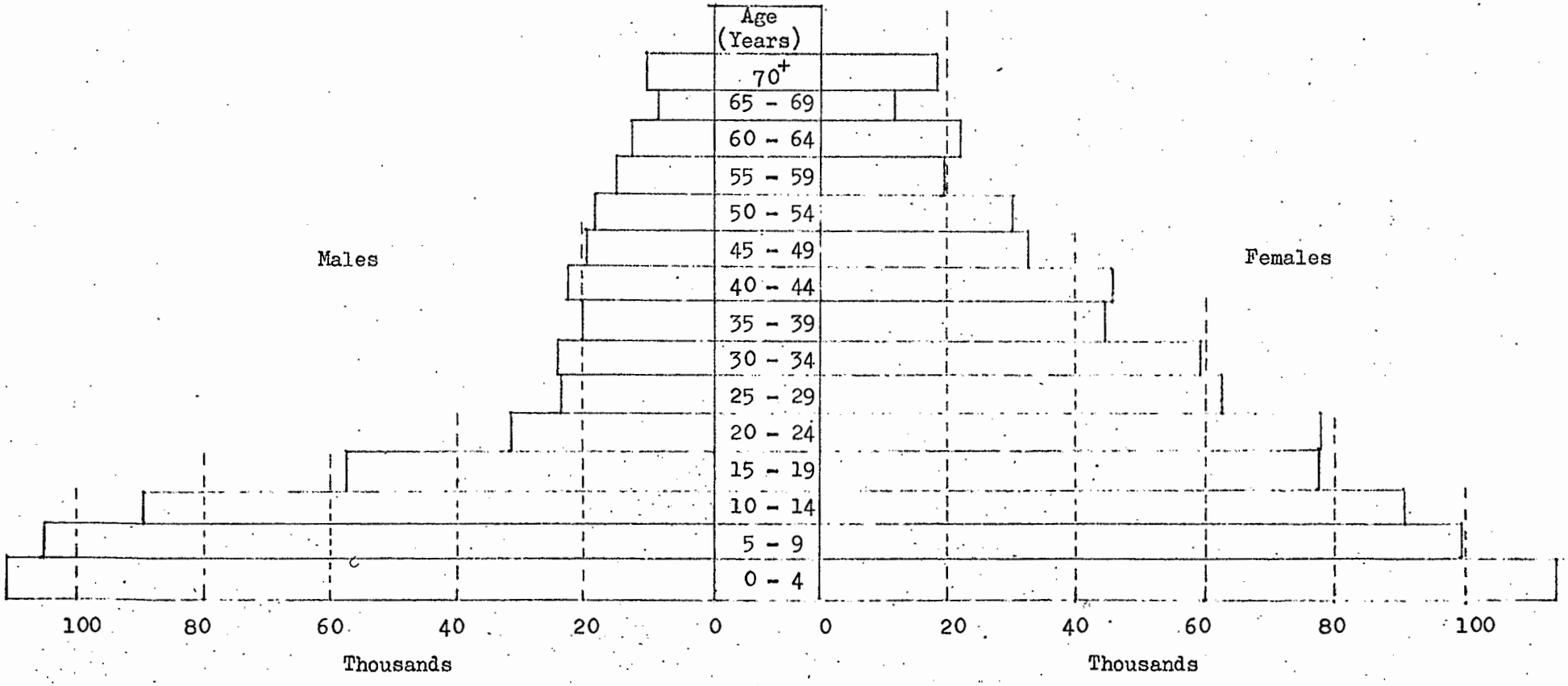
2. Transkei: Bantu Population Forecast.

3. Transkei: School pupils projected.

4. Transkei: School Teachers.

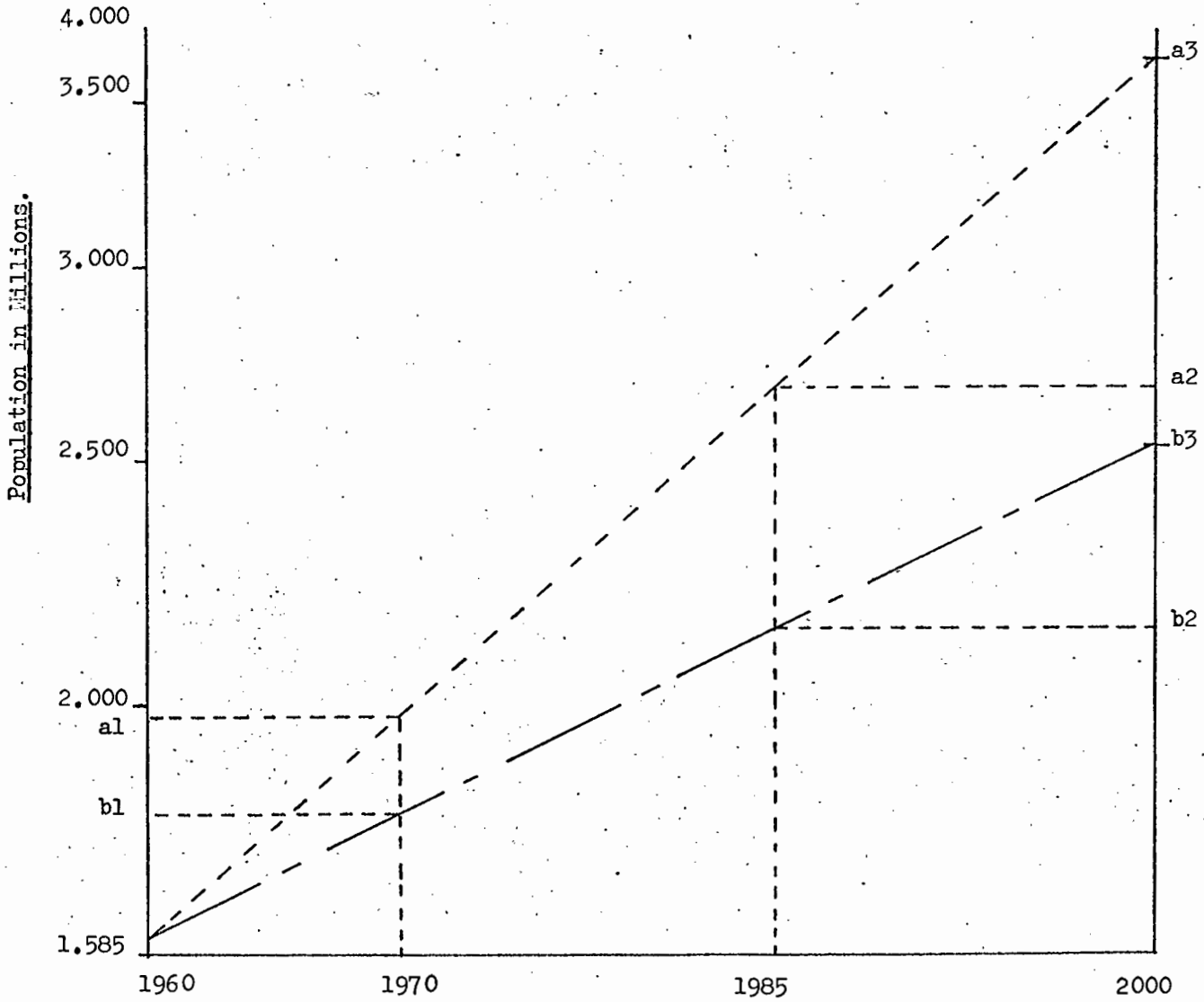
TRANSKEI 1960.

BANTU POPULATION.



Source : Population Census 1960, Sample Tabulation No. 5.

DIAGRAM 1.



TRANSKEI : Bantu Population Forecast.

Notes:

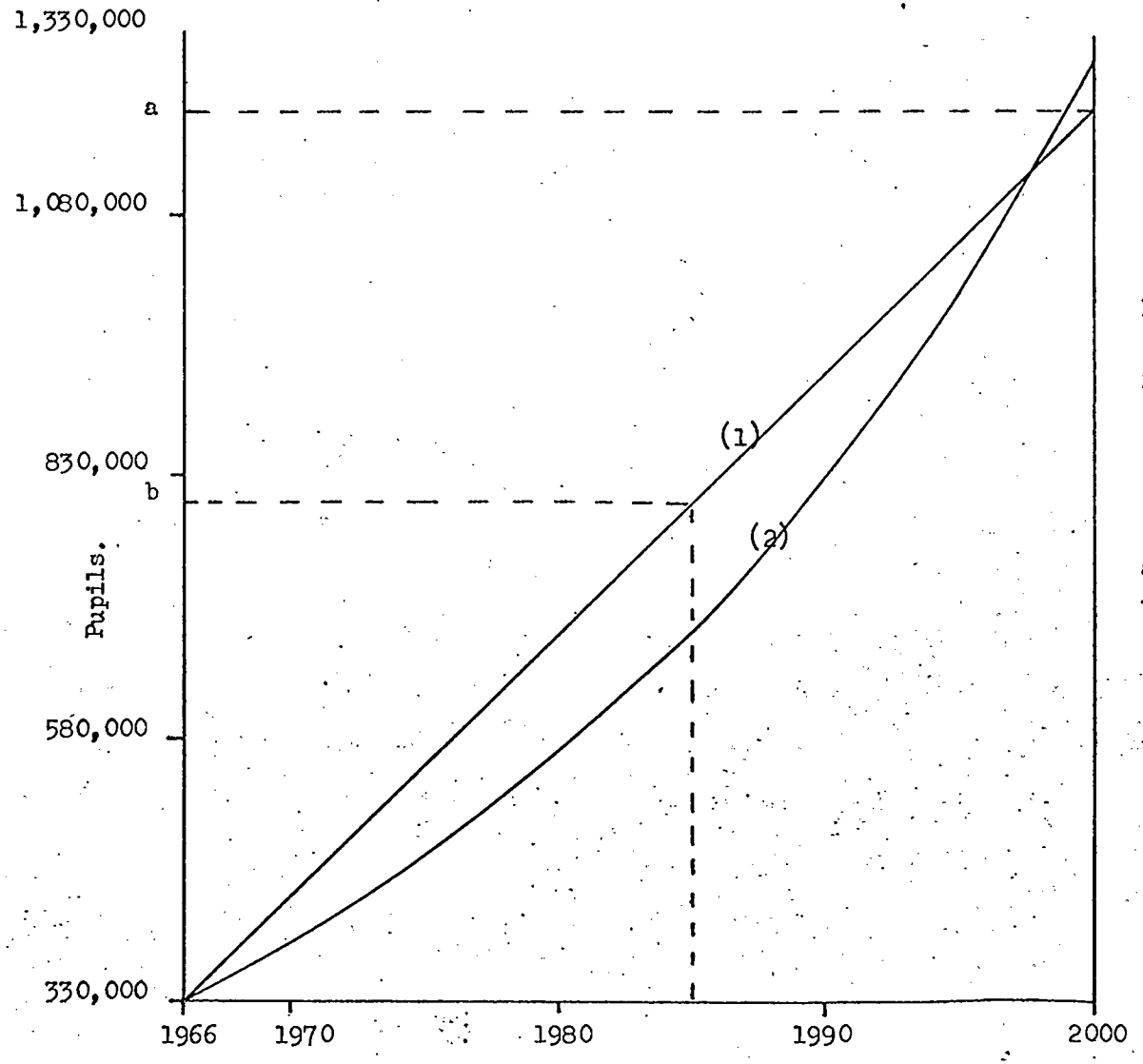
1. "A" projects growth rate of Cape Province Bantu between 1951 & 1960.
2. "B" projects growth rate of Transkei Bantu between 1951 & 1960.

1970 a1) = 1,972,000
1970 b1) = 1,807,000

1985 a2) = 2,692,000
1985 b2) = 2,138,000

2000 a3) = 3,648,000
2000 b3) = 2,547,000

DIAGRAM 2.



TRANSKEI.

School pupils projected at an

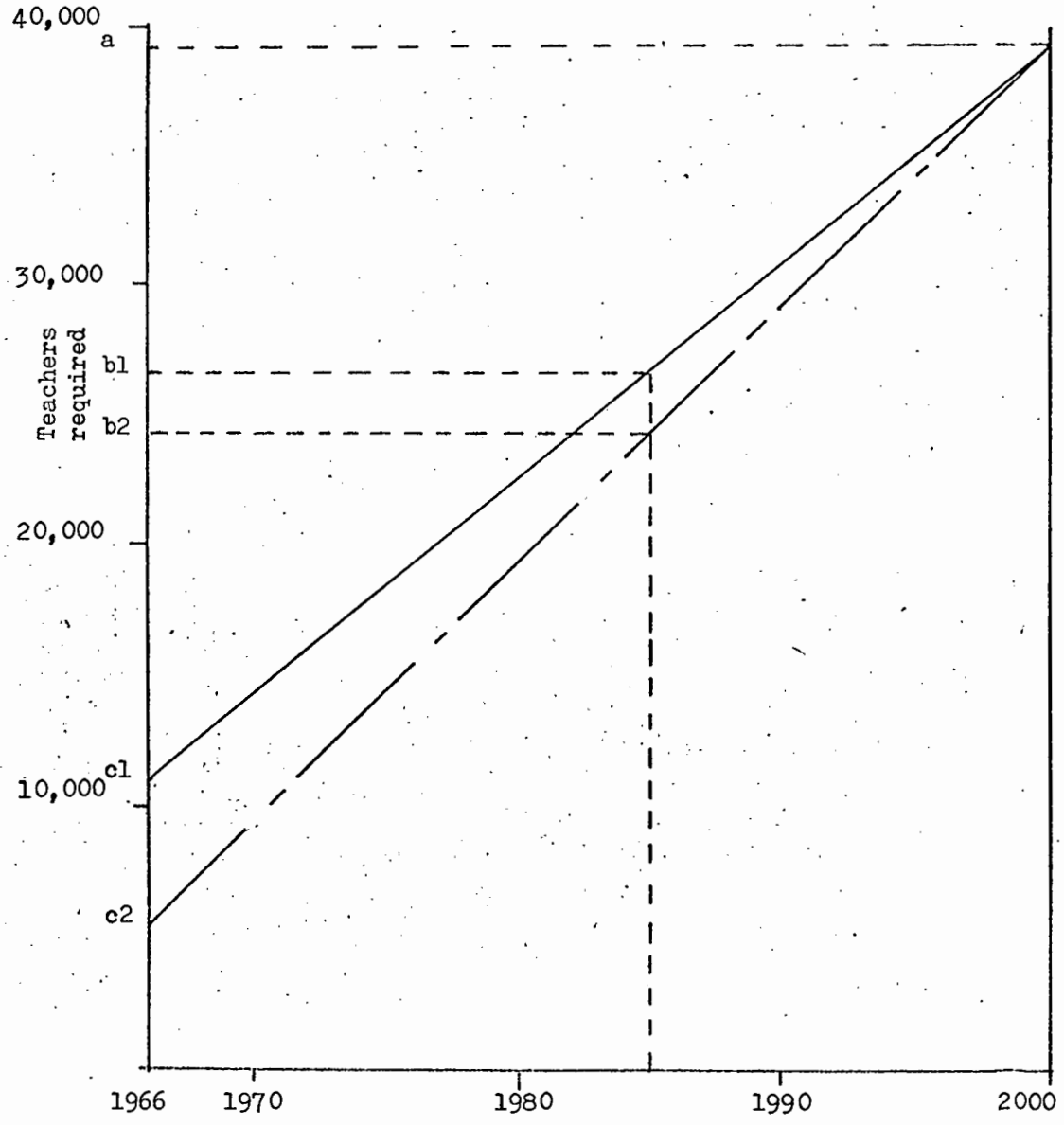
1) Annual increase of 25,000 pupils, and

2) A constant rate of increase so that ⅓ of total population will be at school by the end of the century.

a = 1,180,000

b = 805,000

DIAGRAM 3.



TRANSKEI : SCHOOL TEACHERS.

a = 39,300
b1 = 26,800
b2 = 24,300
c1 = 11,000
c2 = 5,700

NOTES :

——— School teachers required at 1 teacher per 30 pupils.

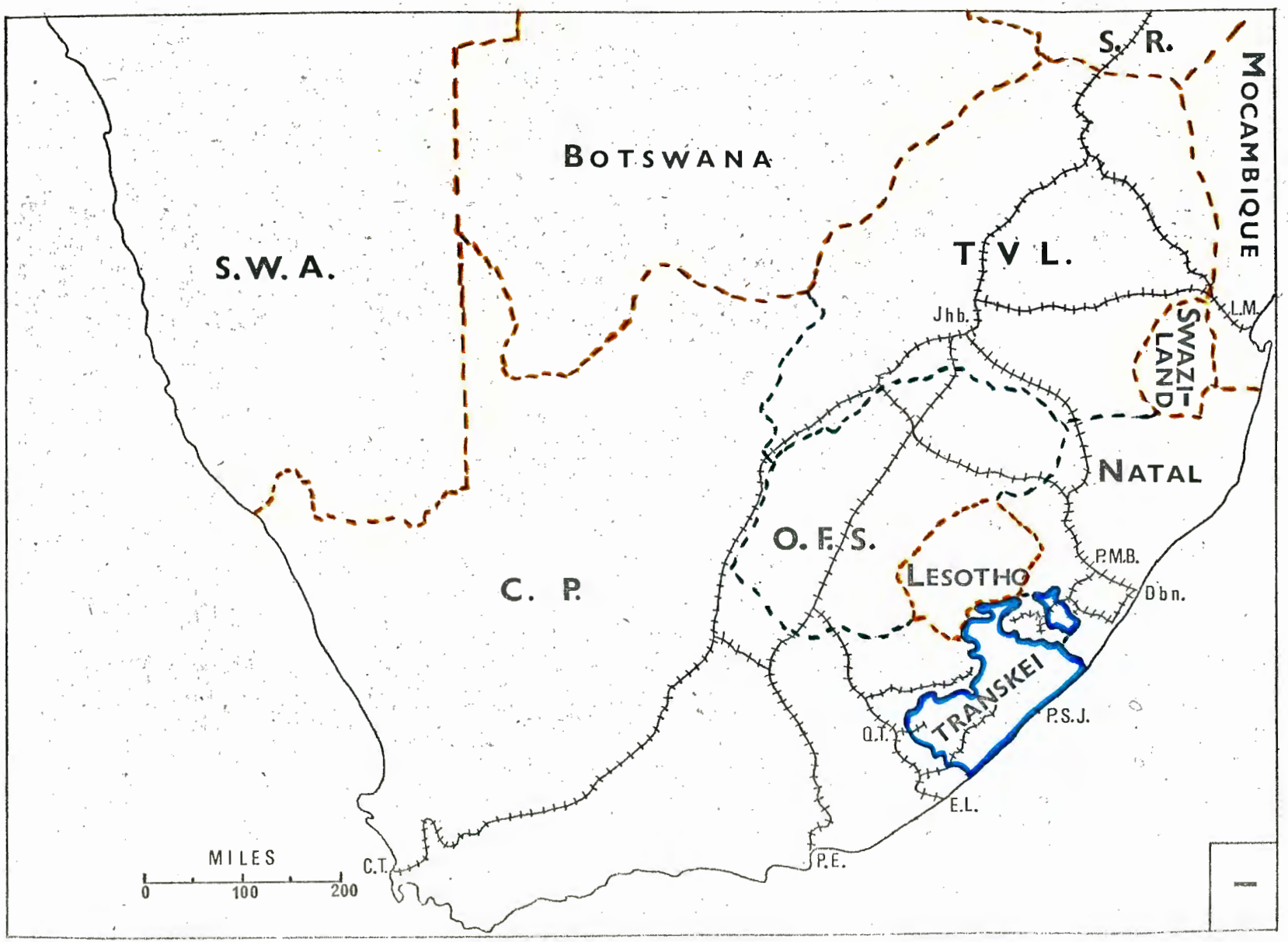
– – – School teachers required to achieve goal of 1 teacher per 30 pupils by 2000 A.D.

DIAGRAM 4.

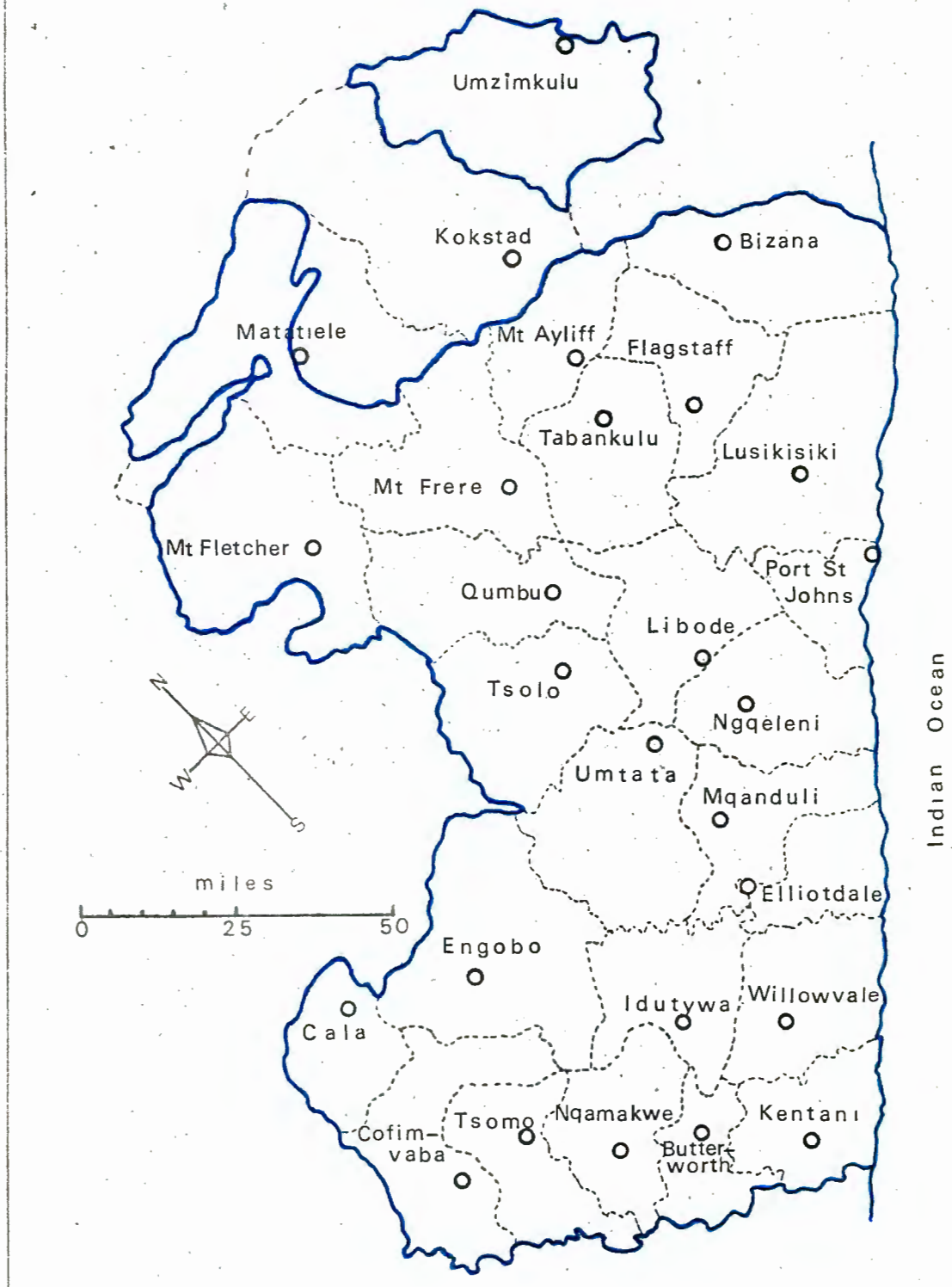
APPENDIX 3

LIST OF MAPS

1. Southern Africa.
2. The Transkei: Towns and Districts.
3. The Transkei: Relative Relief.
4. The Transkei: Water-abundant Areas.
5. The Transkei: Natural Resources
6. The Transkei: Water Resources
7. The Transkei: Electricity
8. The Transkei: % Arable Land.
9. The Transkei: Special Farm-Areas.
10. The Transkei. Present Farming Mix.
11. The Transkei: Agro-Economic Regions.
12. The Transkei: Persons per Square mile 1951.
13. The Transkei: Persons per Square mile 1964.
14. The Transkei: Pop. Density: % Increase 1951 - 1964.
15. The Transkei: Present Infrastructure.
16. The Transkei: 1953 - Schools.
17. The Transkei: 1968 - Schools.
18. The Transkei: Banks - Location.
19. The Transkei: Future Roads etc.
20. The Transkei: The Pattern of Development.

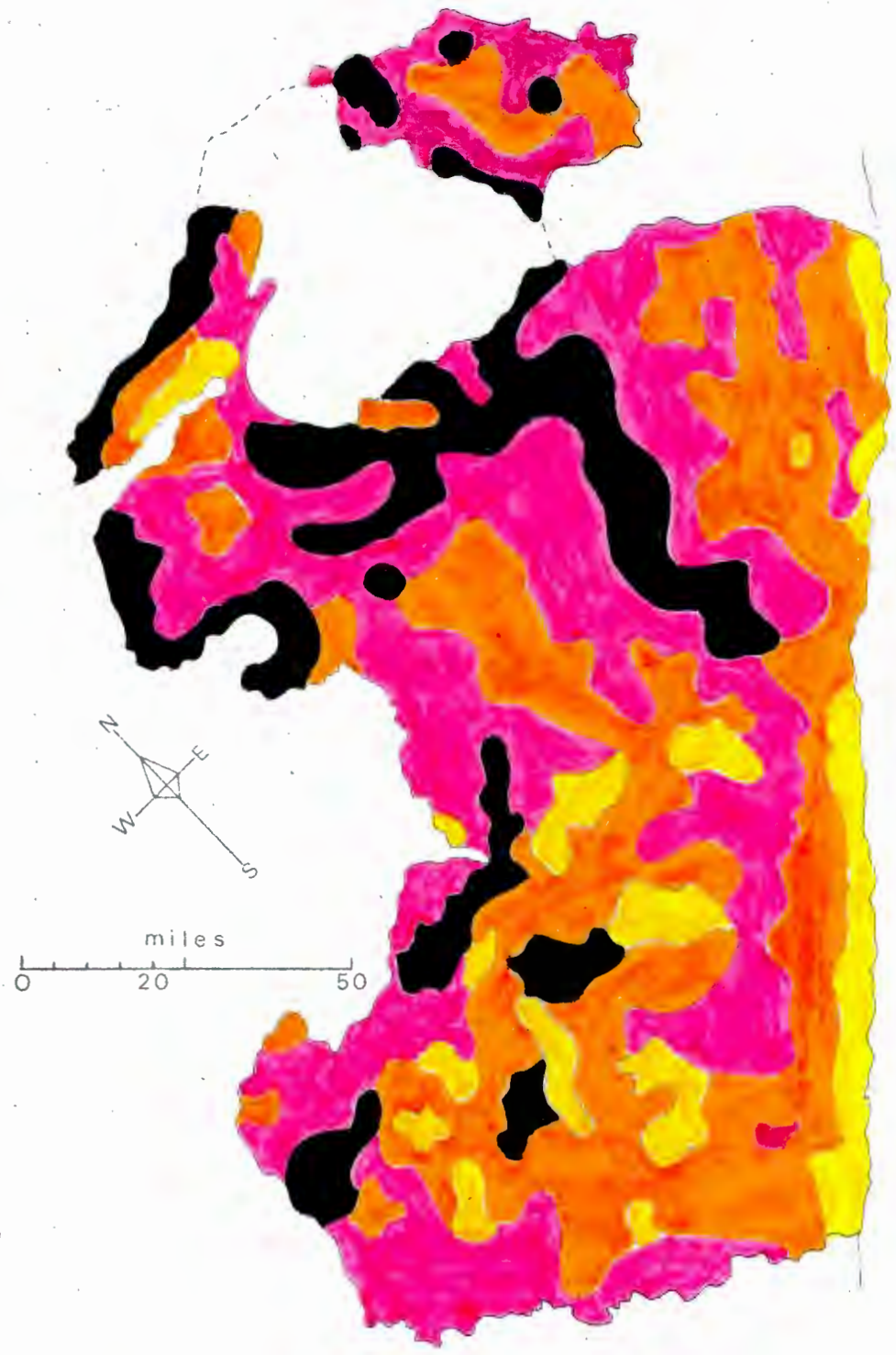

S. R.
MOCAMBIQUE
BOTSWANA
S.W.A.
T V L.
Jhb.
L.M.
SWAZI-LAND
NATAL
O. F. S.
C. P.
P.M.B.
LESOTHO
Dbn.
TRANSKEI
P.S.J.
O.T.
E.L.
C.T.
P.E.
MILES
0
100
200

The Transkei



Towns and Districts

The Transkei



RELATIVE RELIEF

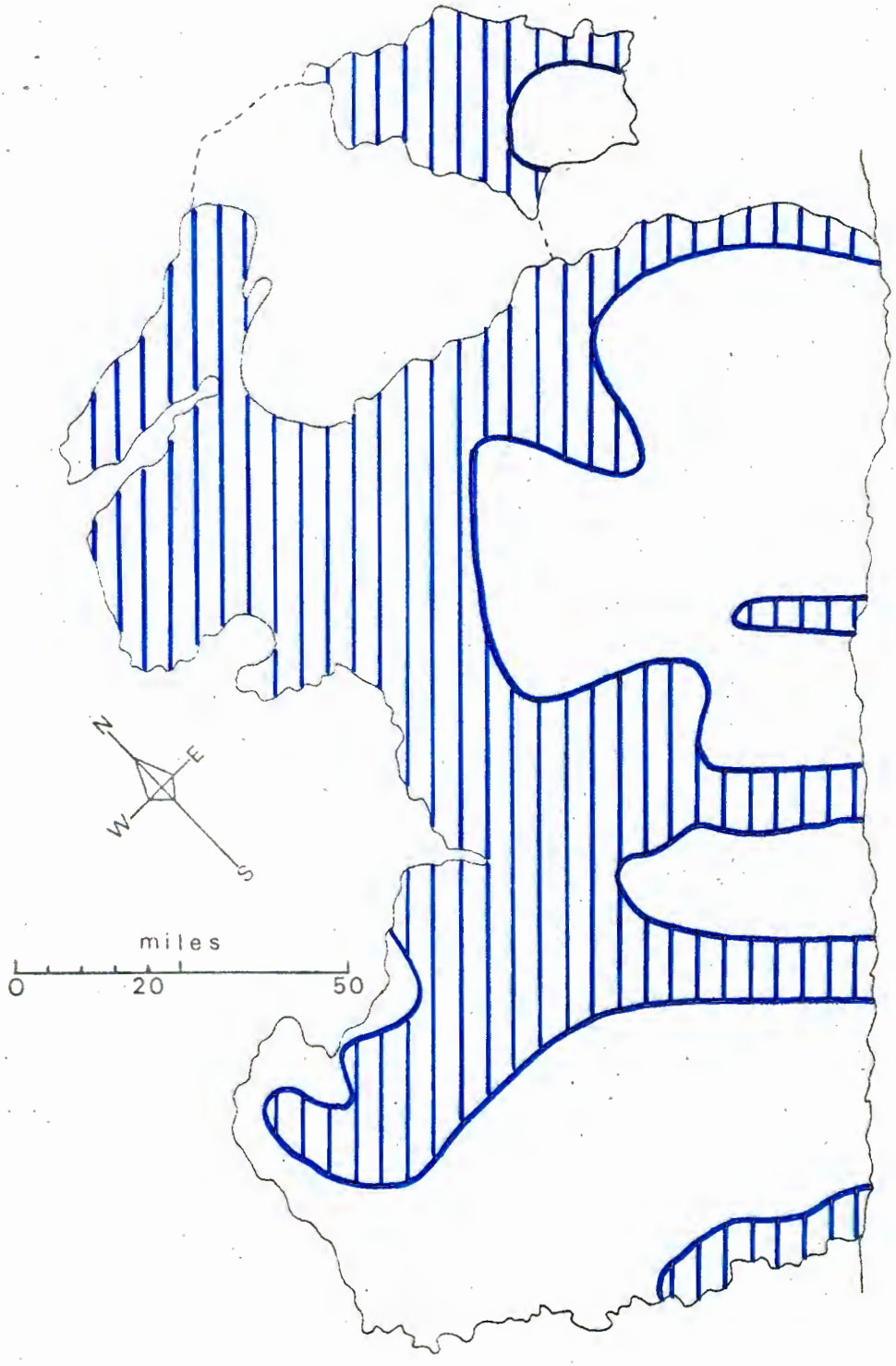
0 - 1/50

1/50 - 1/25

1/25 - 1/12

1/12 - ∞

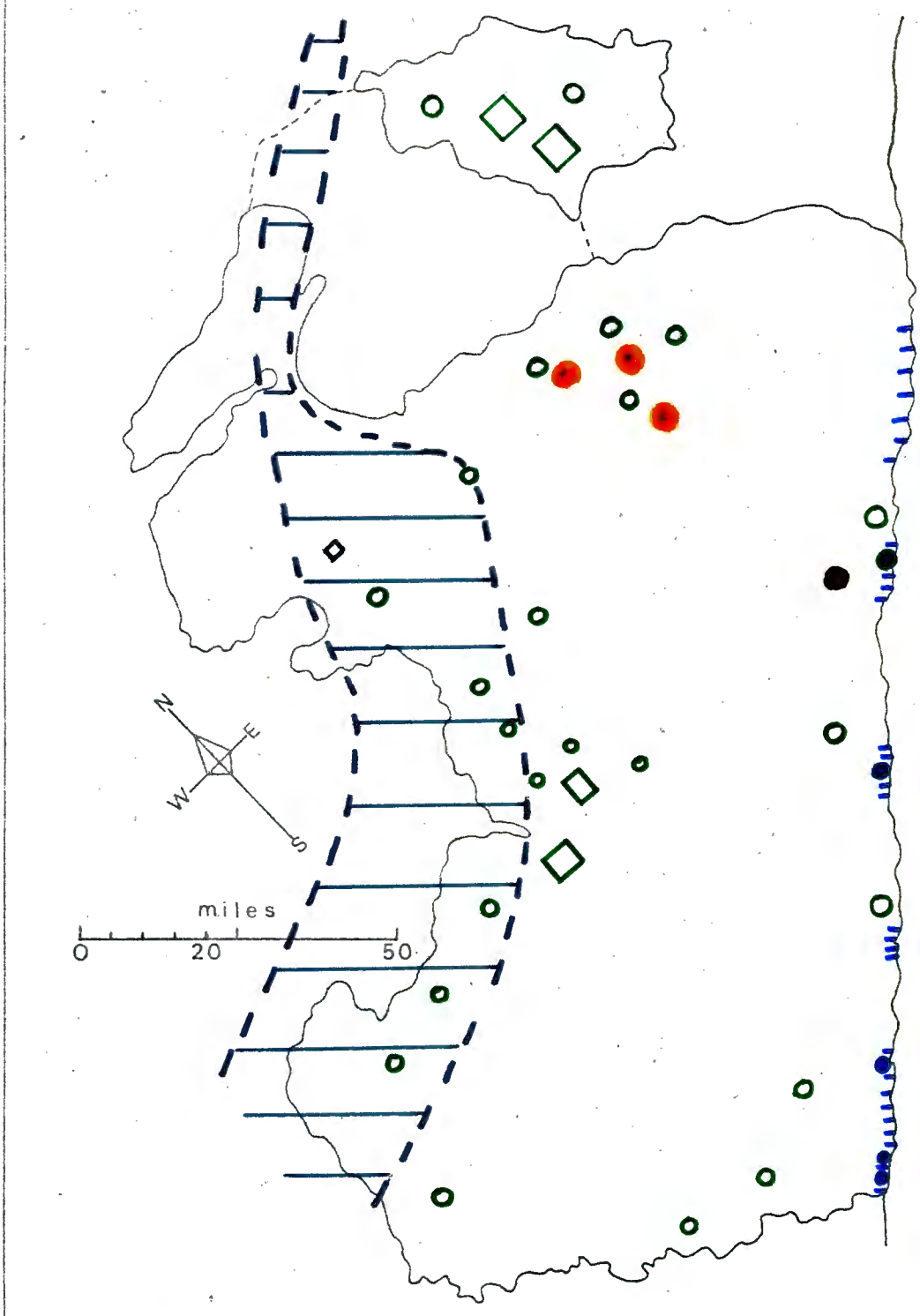
The Transkei



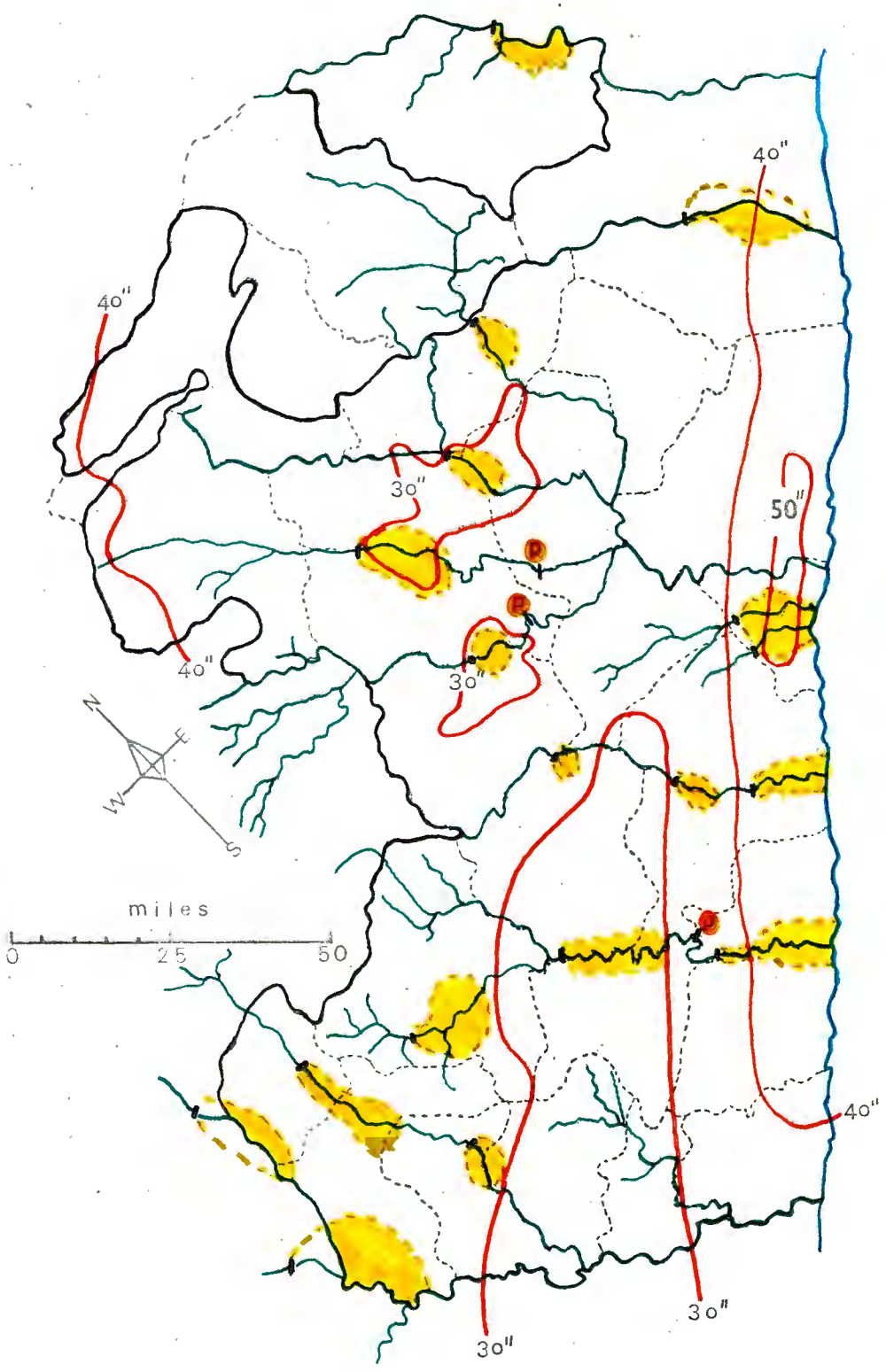
WATER-ABUNDANT AREAS

5

The Transkei



FORESTS
PLANTATIONS
COAL
COPPER
NICKEL
TRAVERTINE
RECREATION AREAS



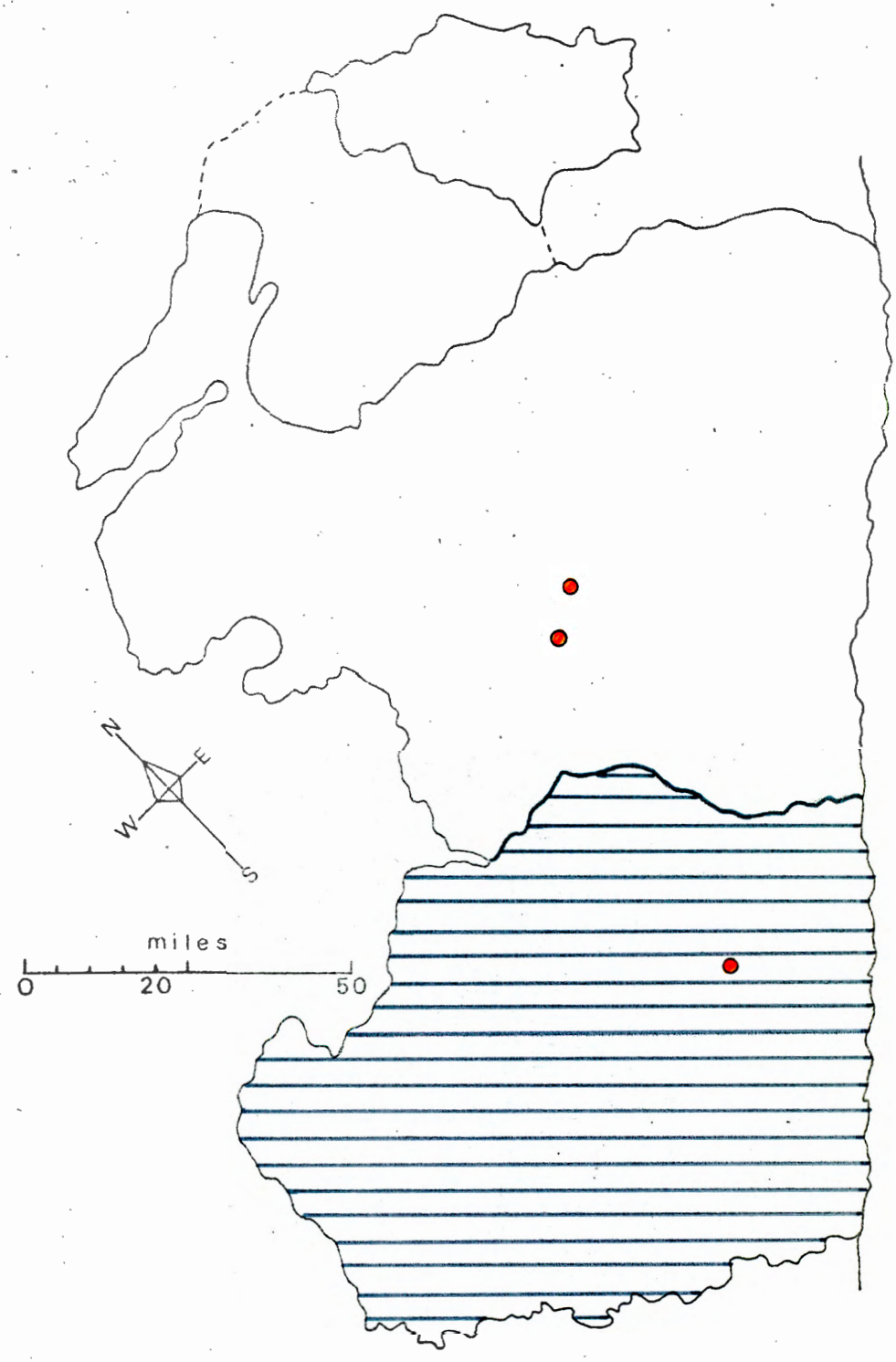
WATER RESOURCES

Rainfall per year

Hydro-power

Irrigation schemes

The Transkei

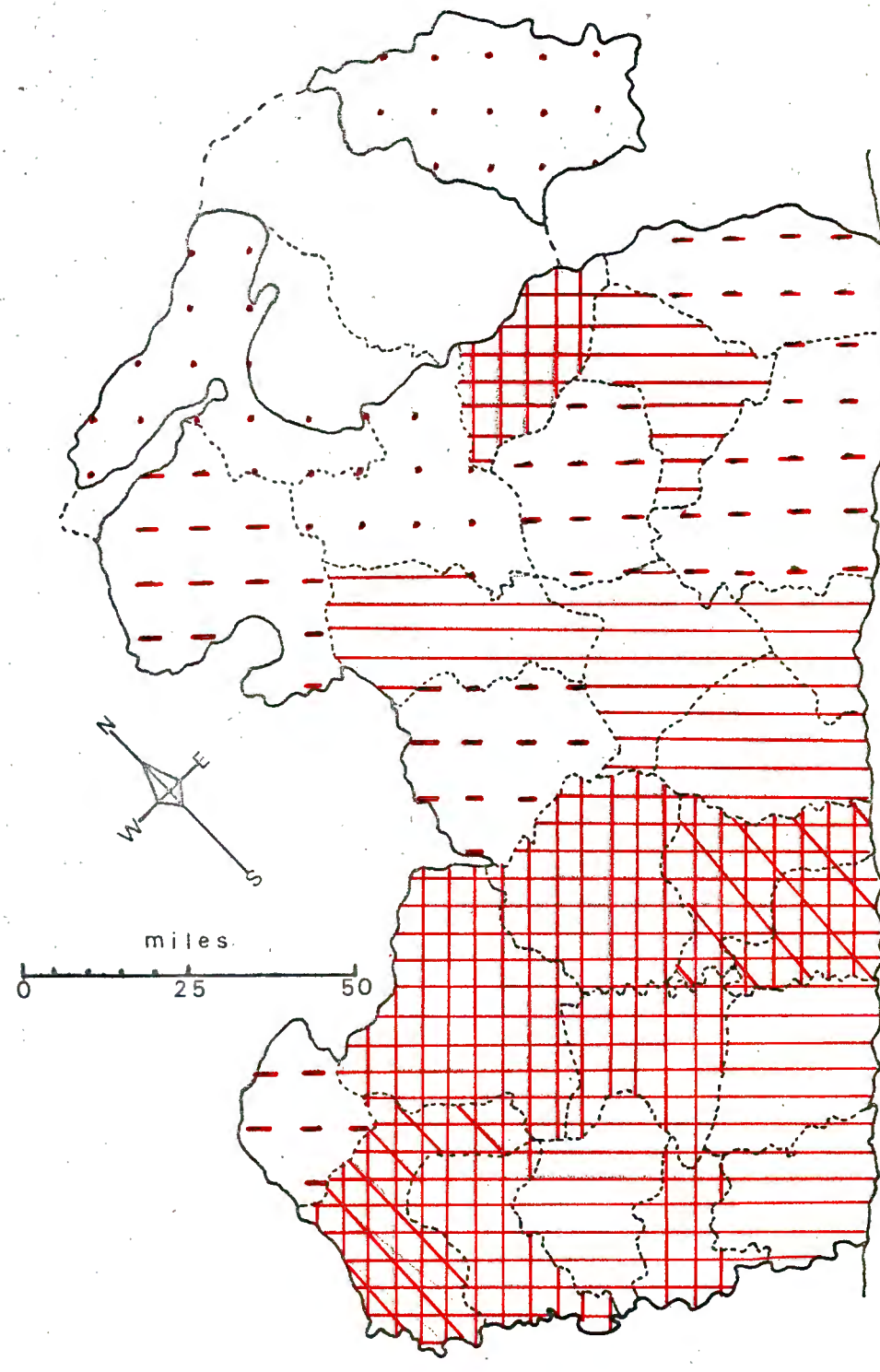


ELECTRICITY

ESCOM LICENCED AREA

POSSIBLE HYDRO-POWER

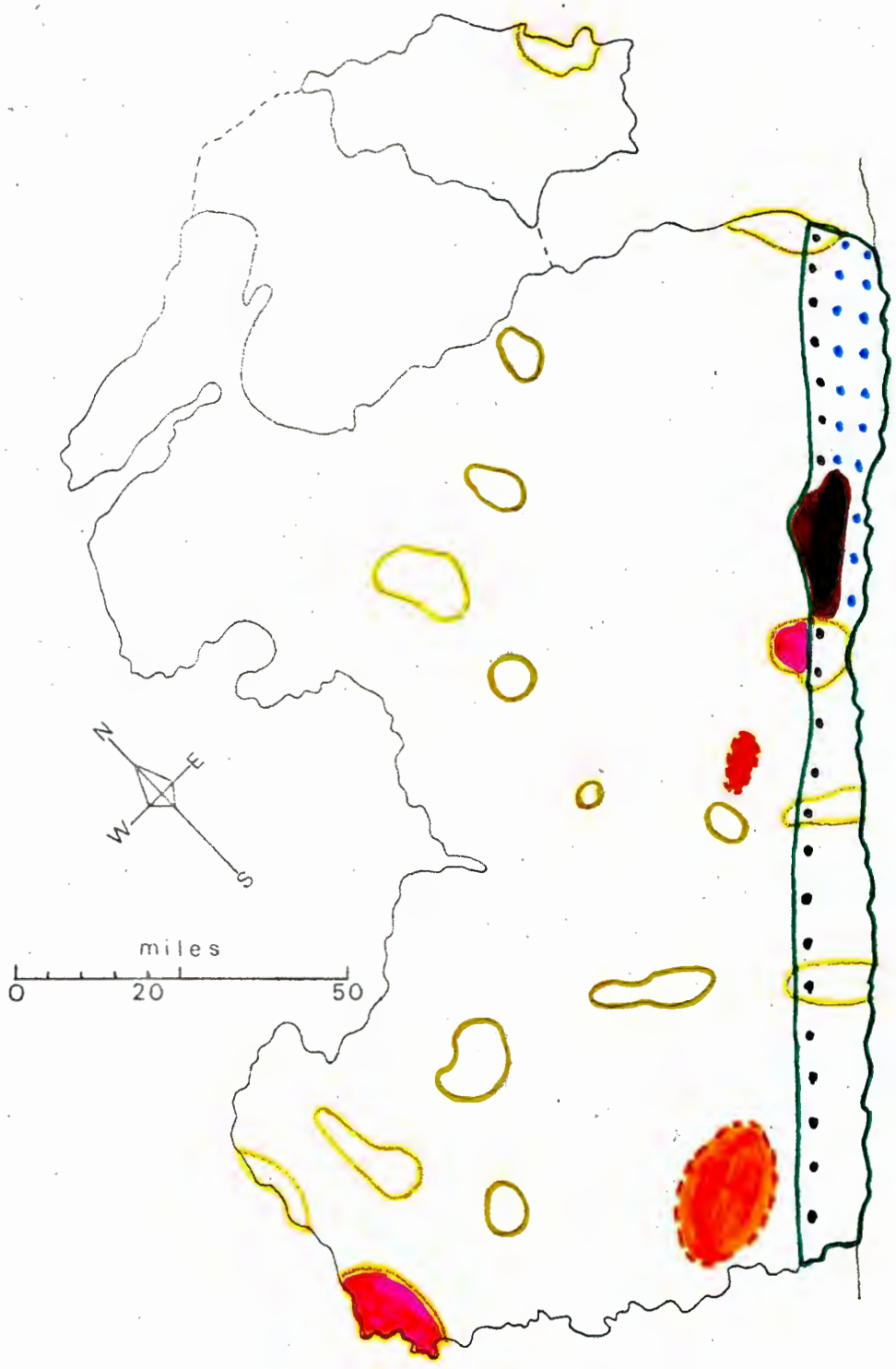
The Transkei



% ARABLE LAND

30+	25-29	20-24	15-19	15-

The Transkei

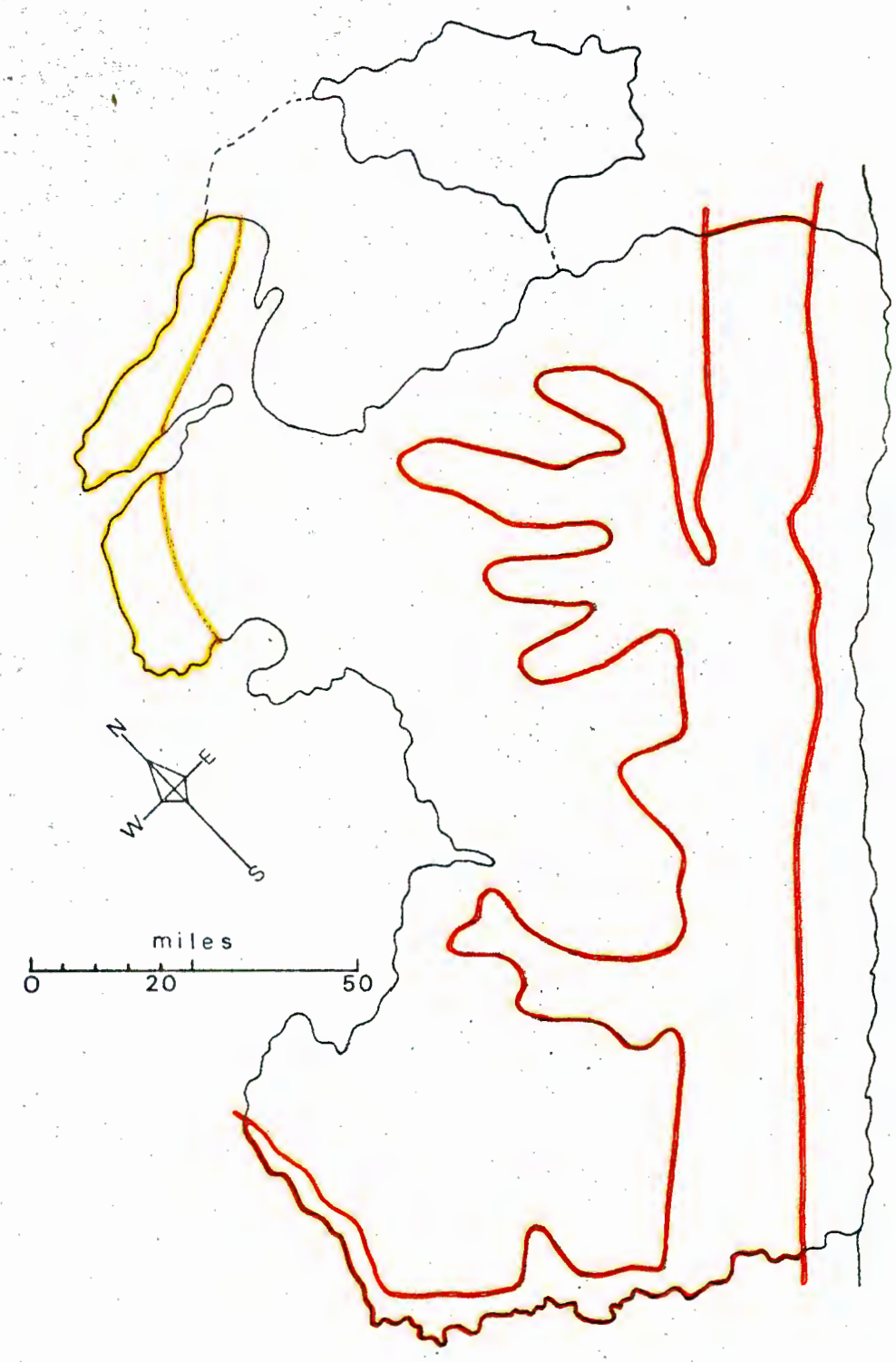


SPECIAL FARM-AREAS

COFFEE
COTTON
FIBRE
SUGAR
TEA
IRRIGATION AREAS
COASTAL REGION

10

The Transkei



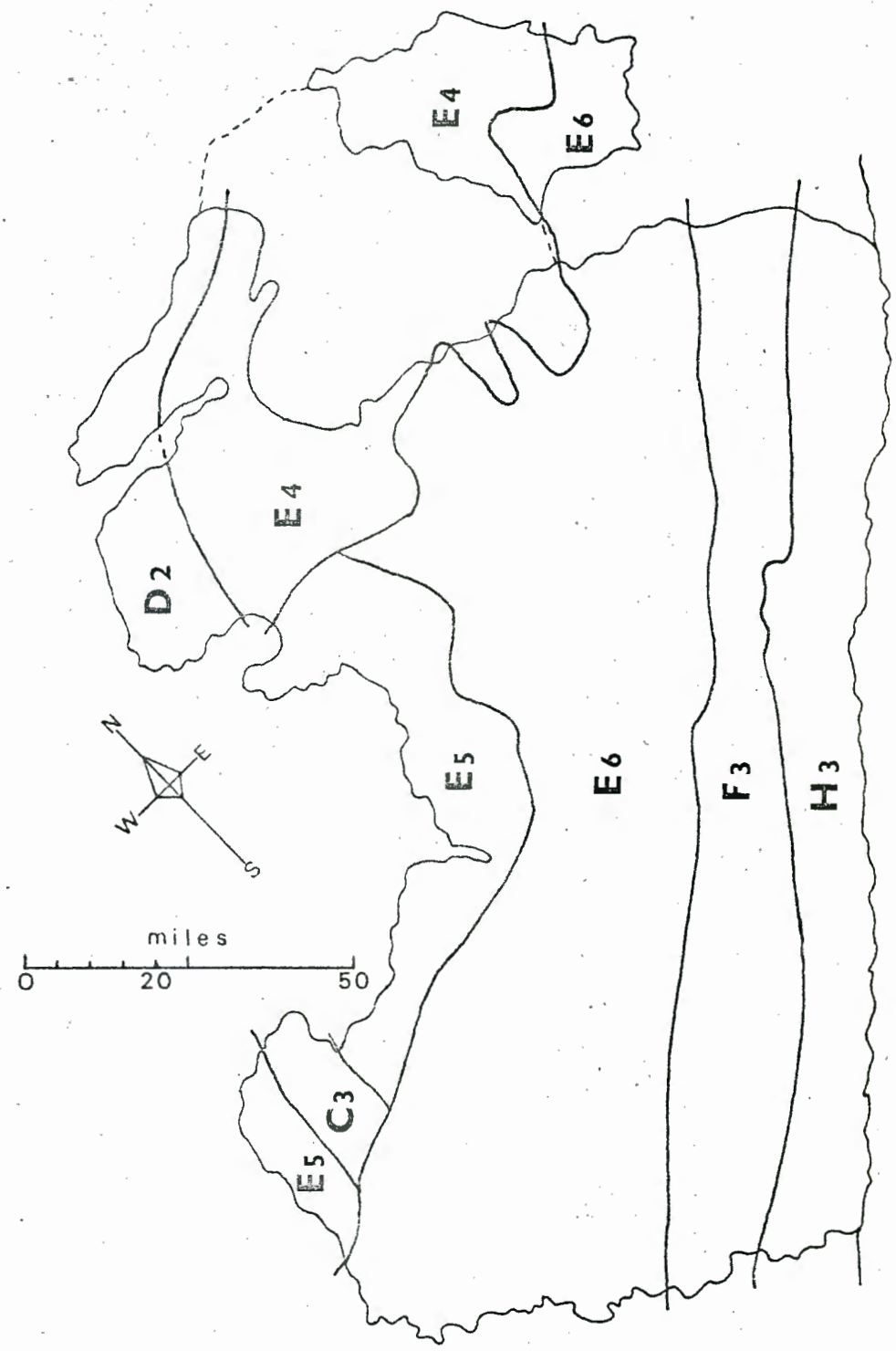
Present Farming Mix

STOCK FARMING

MIXED : MORE STOCK

MIXED FARMING

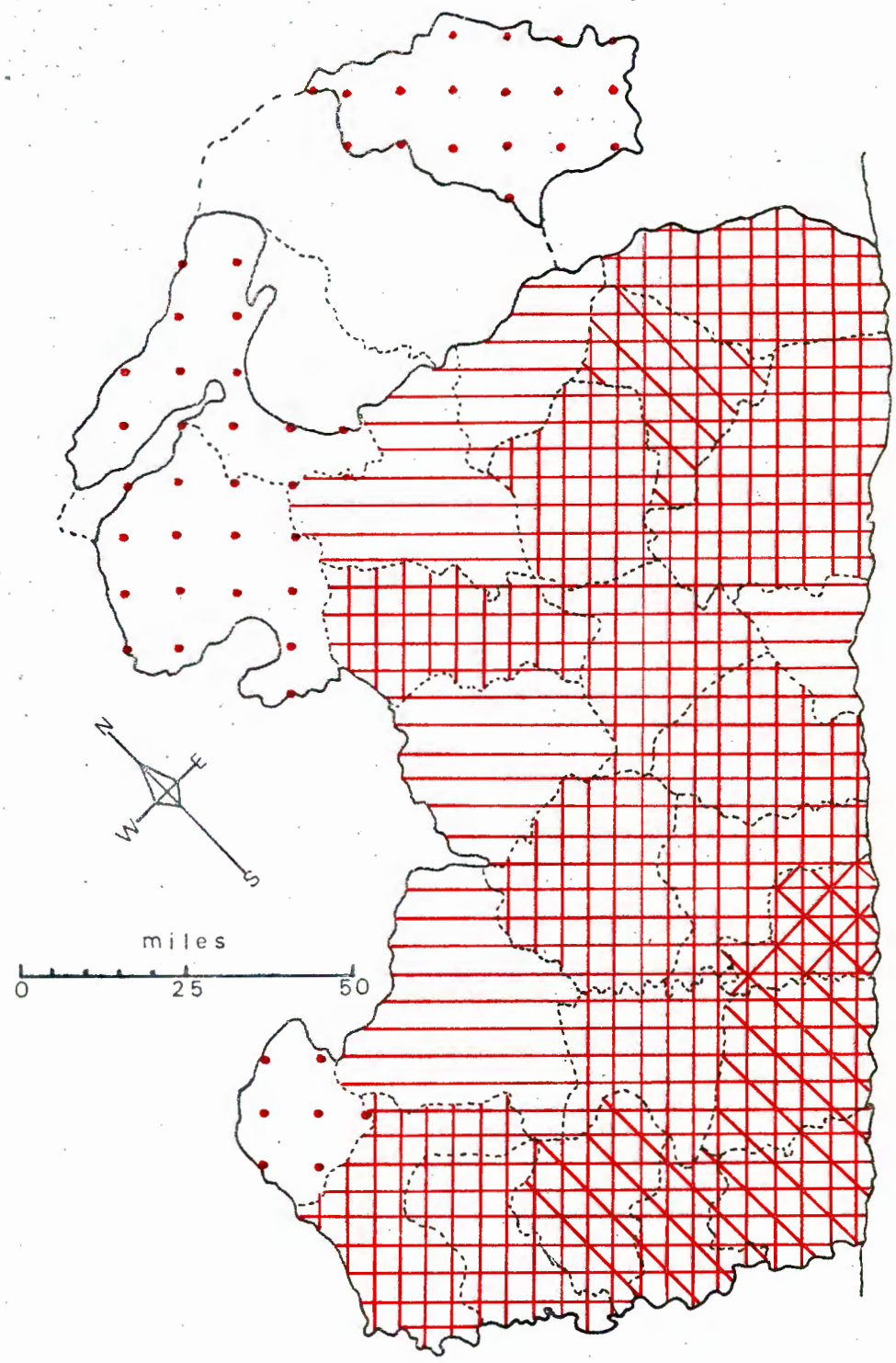
The Transkei



AGRO-ECONOMIC REGIONS

The Transkei

12

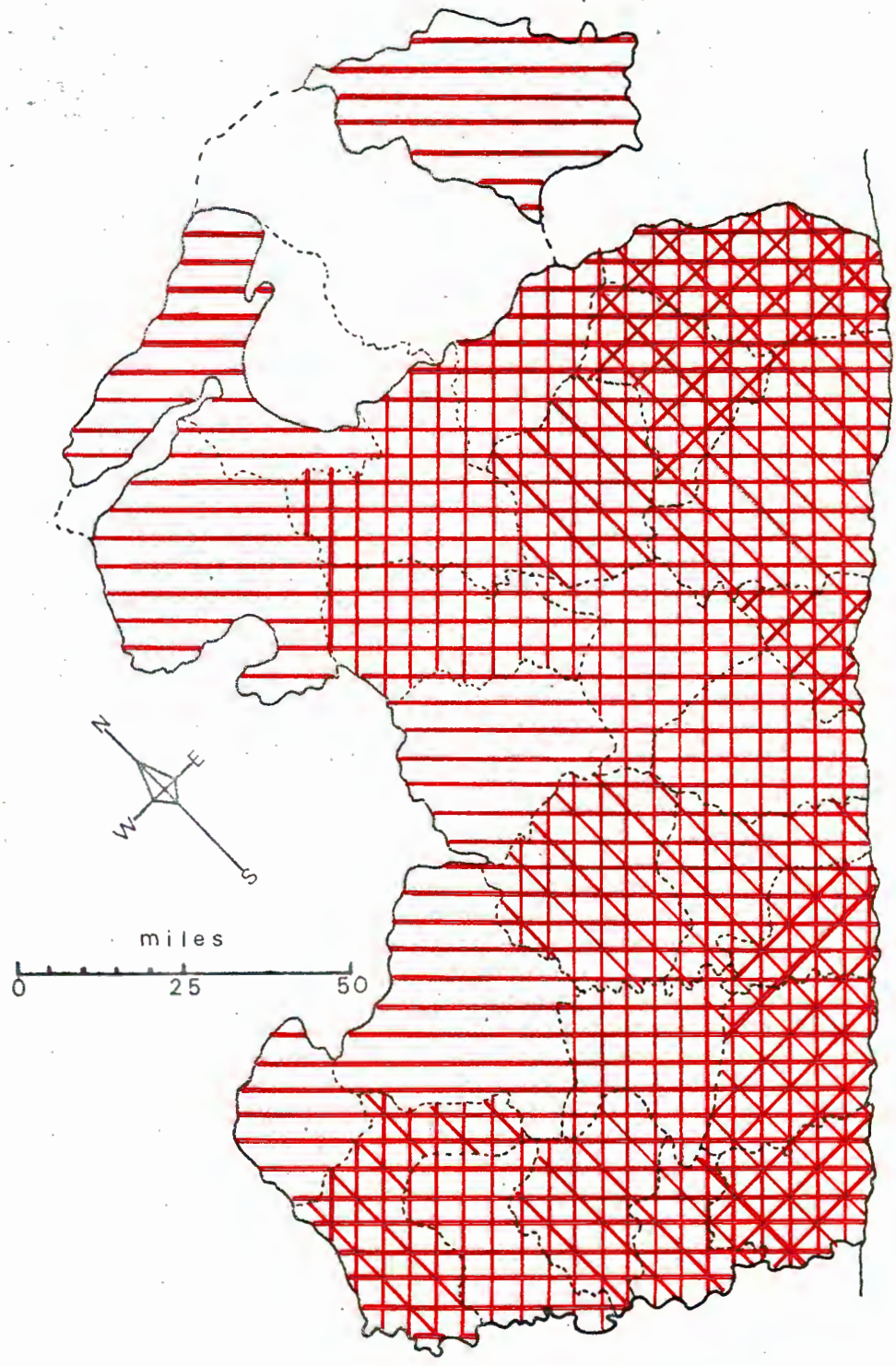


Persons per square mile 1951

120+ 100–119 80–99 60–79 40–59

The Transkei

13

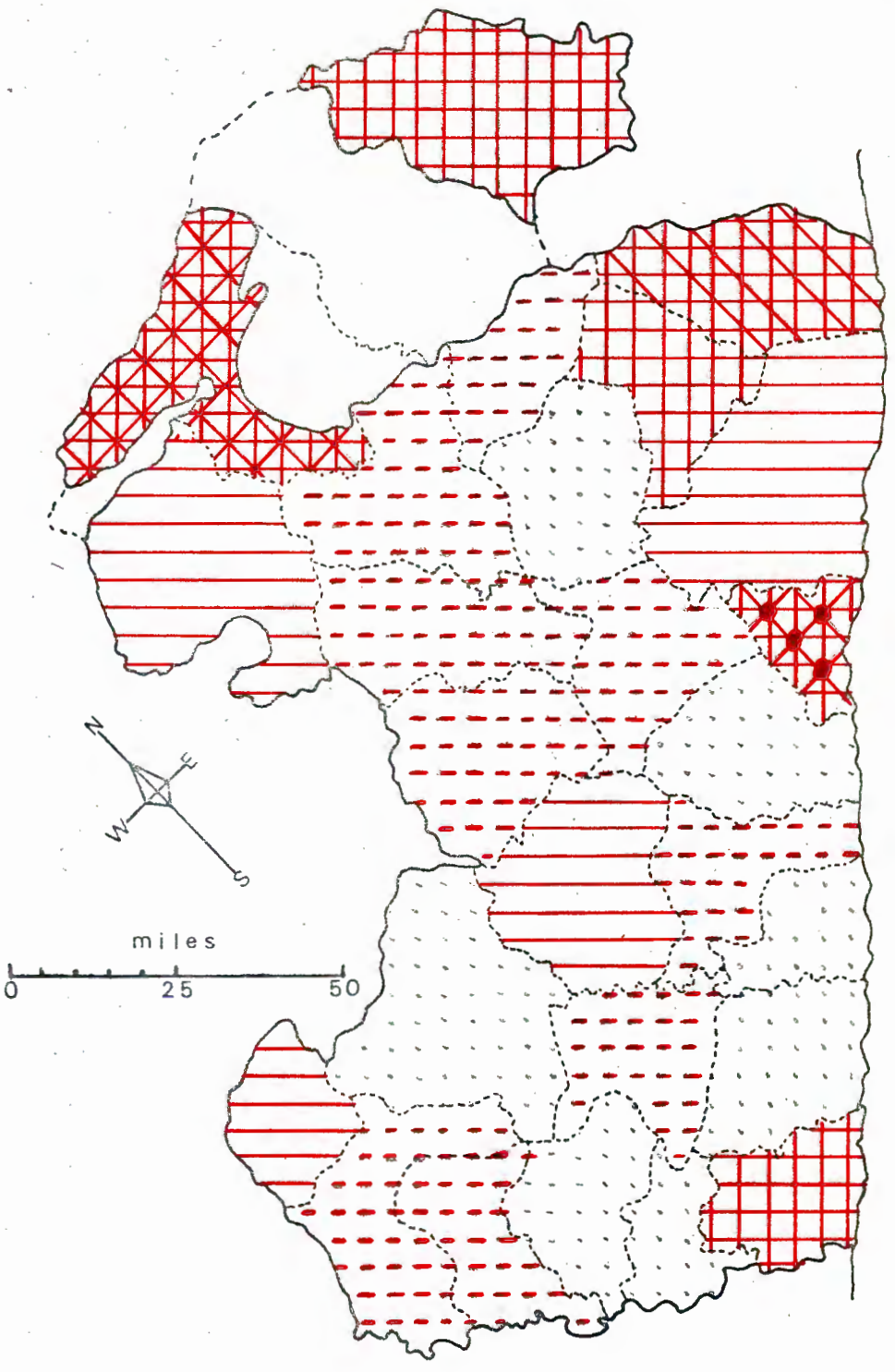


Persons per square mile – 1964

120+ 100–119 80–99 60–79

The Transkei

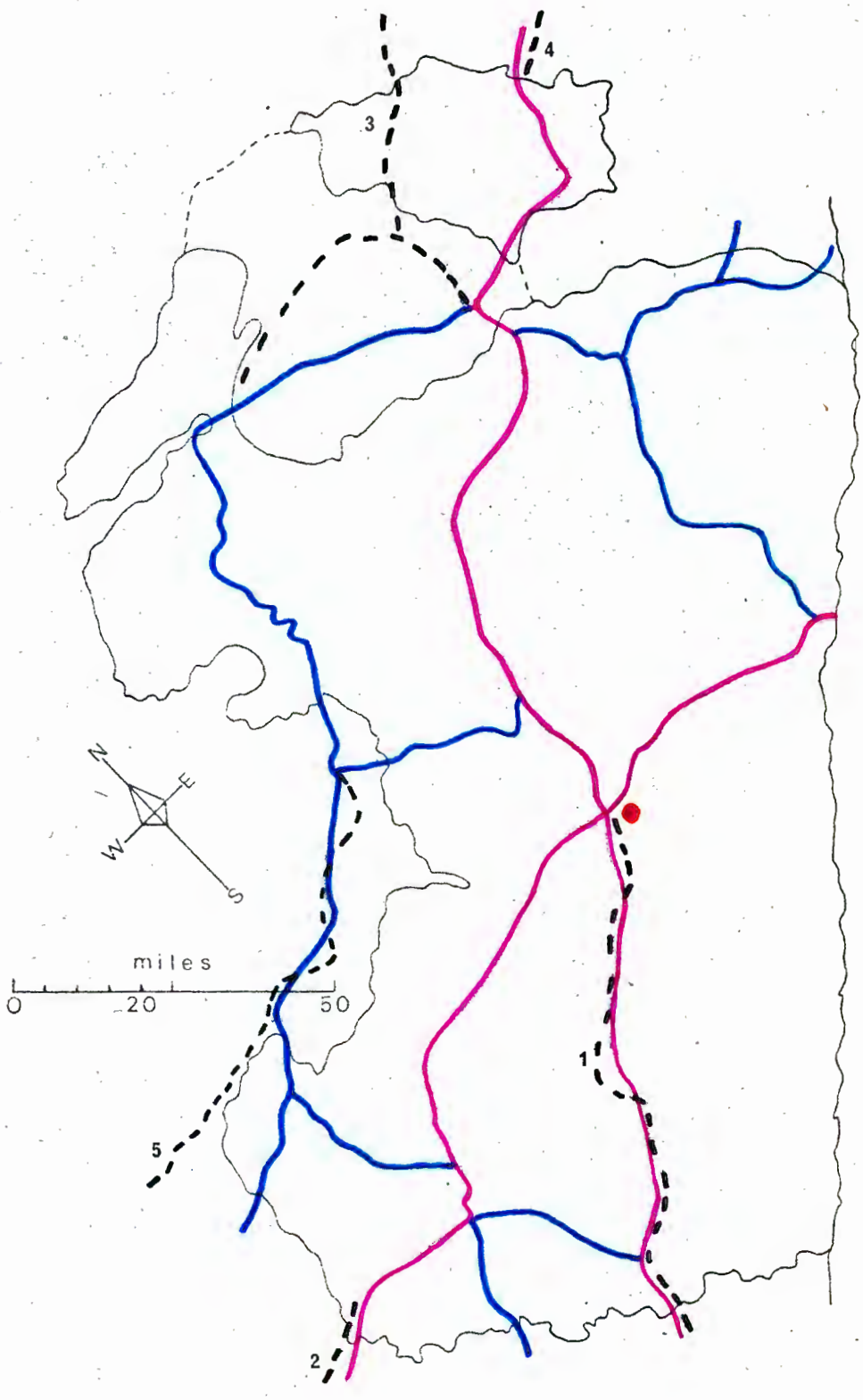
14



POP. DENSITY: % INCREASE 1951—1964

71–80 61–70 41–50 31–40 21–30 11–20 1–10

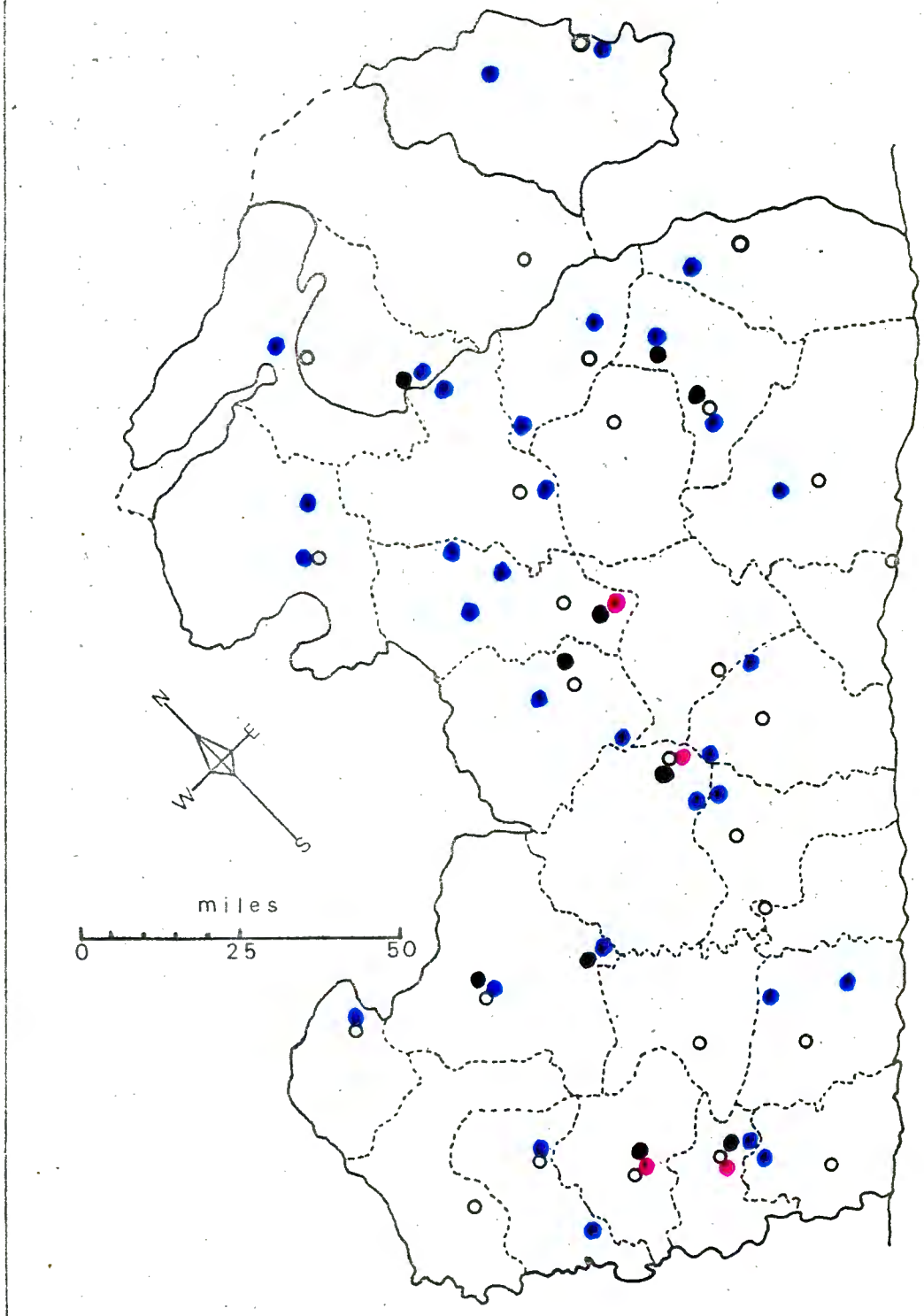
The Transkei



AIRPORTS
RAILWAYS
NATIONAL ROADS
SECONDARY ROADS

The Transkei

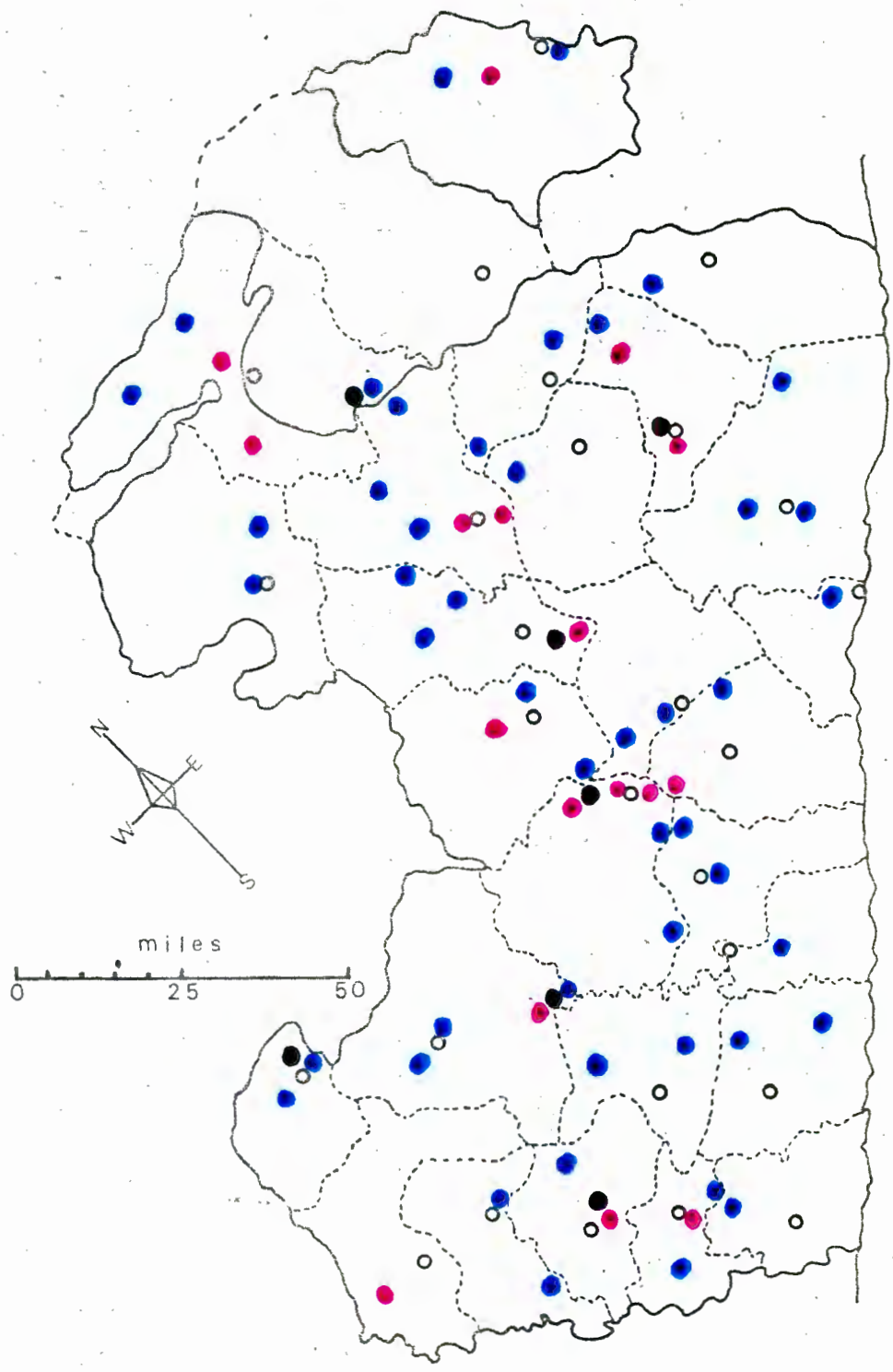
16



1953

- Secondary Schools
- High Schools
- Training Colleges
- Towns

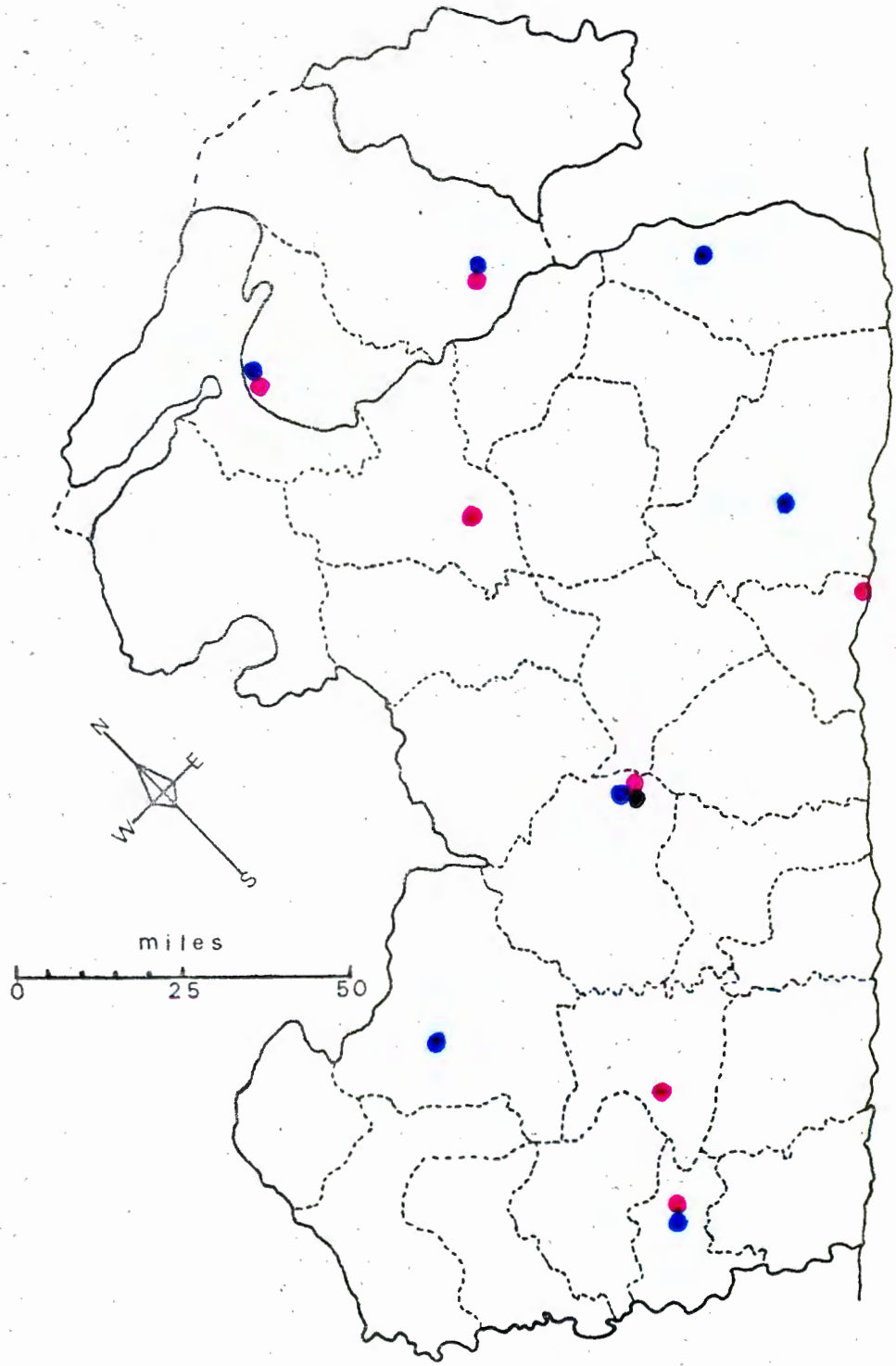
The Transkei



1968

- Secondary Schools
- High Schools
- Training Colleges
- Towns

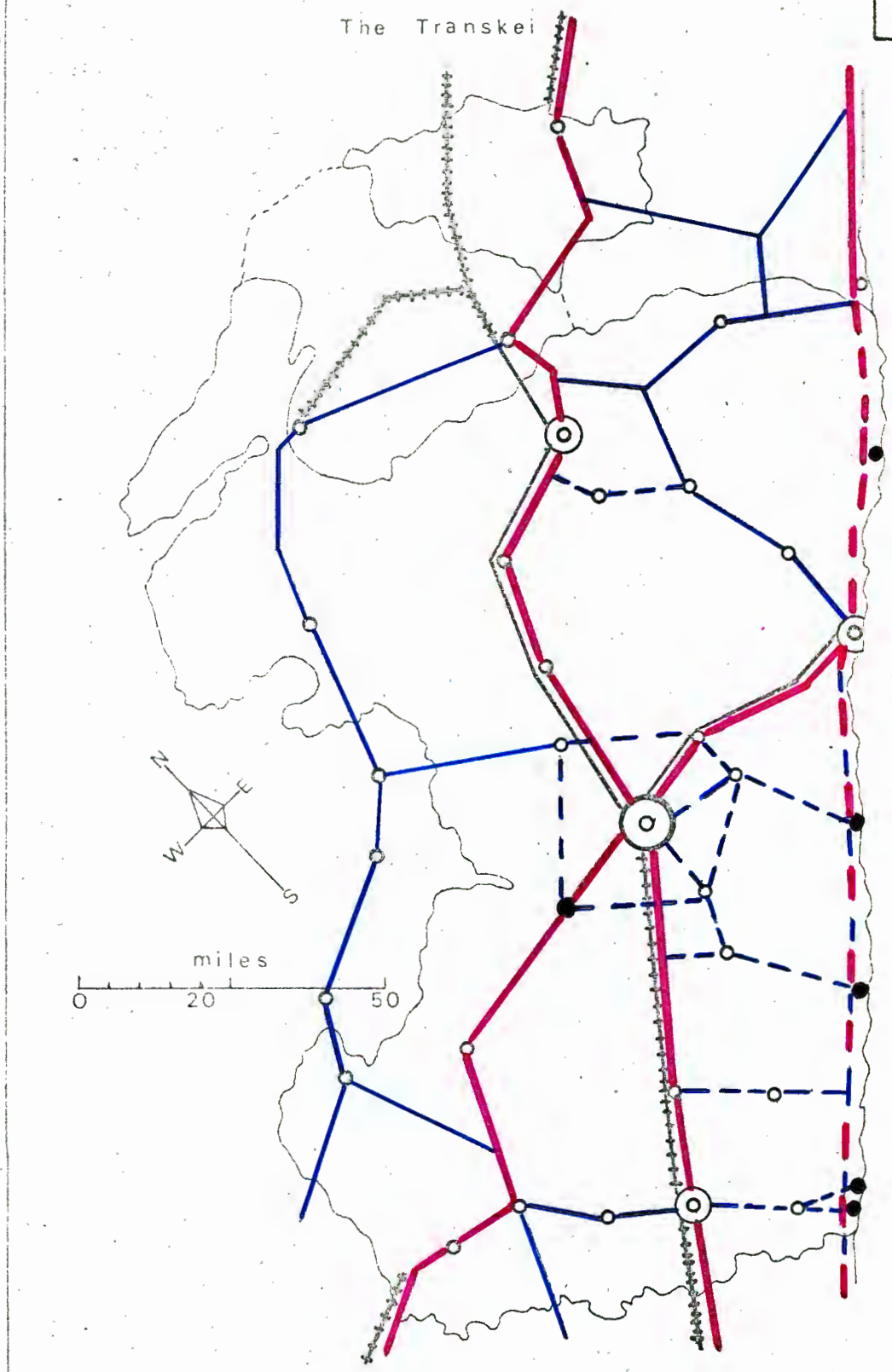
The Transkei



BANKS

KEY TO MAP 19.

- Existing town.
- Proposed main urban centre.
- Proposed new town.
- Existing railway.
- Proposed railway.
- Existing primary road.
- Proposed primary road.
- Existing secondary road.
- Proposed secondary road, mainly replacing a tertiary road.
- Suggested primary road at a very much later stage.


The Transkei
N
E
W
S
miles
0
20
50

KEY TO MAP 20.

Existing primary road.


Proposed primary road.


Existing secondary road.

Proposed secondary road.


Suggested primary road.


Major urban centre.


Hydro-power location.


Mineral resource area.


Coastal region.

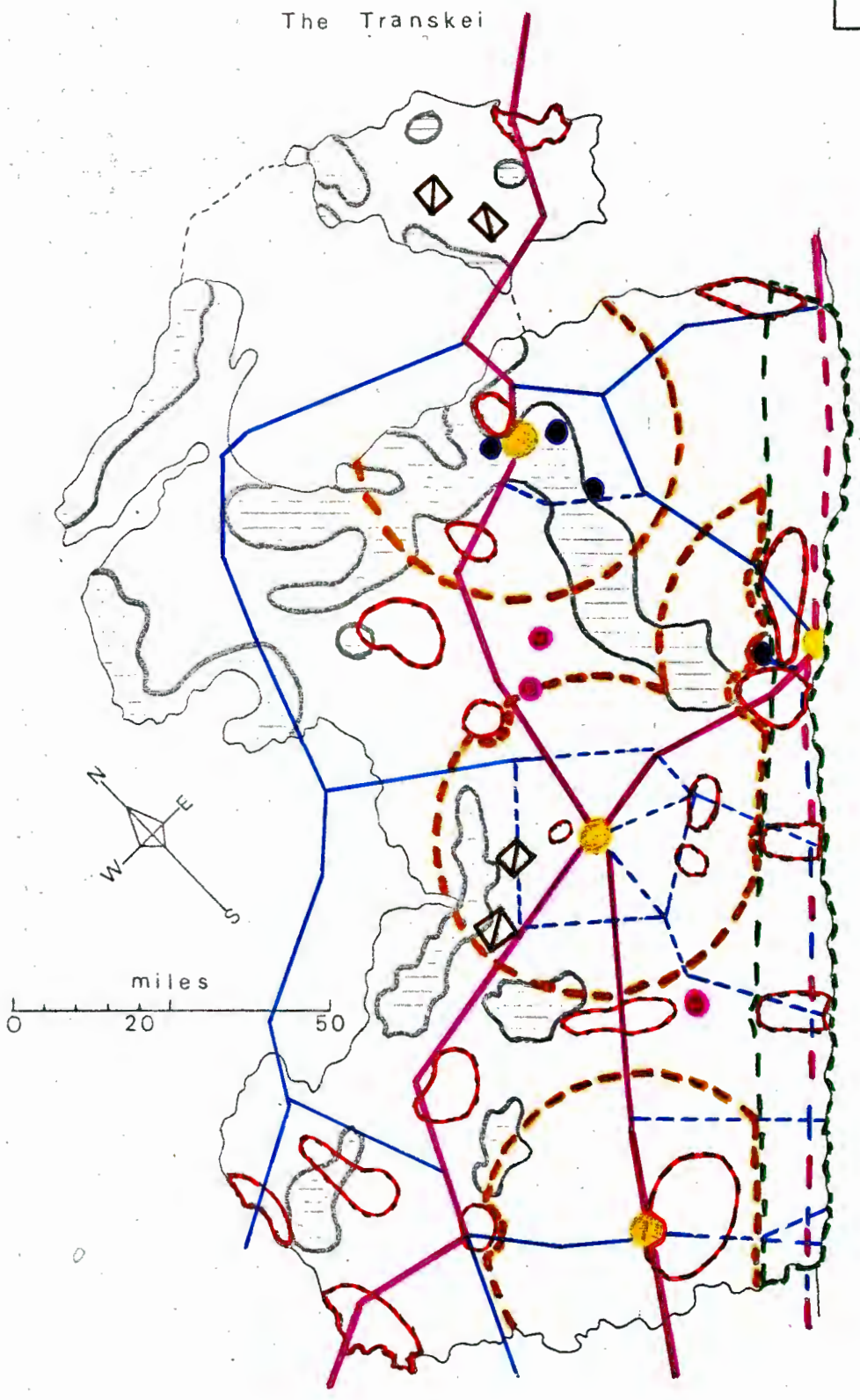

Major plantation area.


Project farming area.


Boundary of area 25 miles from centre of major urban area - Group B settlements.

Group A settlements.


Steeper than 1 in 12.



THE PATTERN OF DEVELOPMENT

N O T E S

CHAPTER 1

1. Population Census, 6th September, 1960. Vol. 1. R.P. 62/1963, Government Printer, Pretoria. p.9.

CHAPTER 2

1. Professor F.R. Tomlinson (chairman): Summary of the Report of the Commission for the Socio-economic Development of the Bantu Areas within the Union of South Africa. U.G. 61/1955. The Government Printer, Pretoria, page 51, and the full Report, Chapter 12.

   (Hereinafter this Report will be referred to as the Tomlinson Report: Full Report or Summary).

2. W.H. van der Merwe: Development of Forestry in the Transkei. Ulimo Nemfuyo e-Transkei, March, 1966, pp. 31 - 32.

   The scale of individual forests and plantations could not be ascertained.

   Refer also to the Tomlinson Report: Summary, Map 21.

3. Tomlinson Report: Full Report, Chapter 20 p.50.

4. Tomlinson Report: Full Report, Chapter 20 p.52.

CHAPTER 3

1. The run-off of rivers is not known and cannot be calculated easily.

CHAPTER 4

1. Tomlinson Report: Full Report, Chapters 28 - 30.

2. Agricultural Economic Map of South Africa, 1965. Government Printer, Pretoria, 1967.

3. Tomlinson Report: Full Report, Chapter 28.

4. Tomlinson Report: Summary, p.115.

CHAPTER 5

1. Monica Hunter: Reaction to Conquest. London. O.U.P. 2nd Edition, 1961.
   In areas not yet planned, extracts used still appear to hold true.

2. Ibid. p.68.

3. Ibid. pp. 74 and 75.

4. Ibid. p.85.

5. Ibid. p.88.

6. Philip Mayer: Townsmen or Tribesmen. London. O.U.P. 1961.

CHAPTER 6

1. See Table 3.

2. Verbal information from the Office of the Town Engineer, Umtata.

3. Population Census, 1960, Vol. 1.
   According to the Agricultural Economic Map of S.A., 1965, yield per morgen in the Transkei was R10, whereas in the Paarl-Somerset West-Stellenbosch area it was R71.

4. Population Census, 1960, Sample Tabulation No. 8, p.92.

5. J.L. Sadie: The Native Reserves of the Union-Industrial areas of the Future. Finance and Trade Review, July, 1954.

6. The Annual of the Transkeian Government, 1968. The Natal Press Ltd. Pietermaritzburg.

7. Ibid.

8. D. Hobart Houghton: The South African Economy. Second Edition. Cape Town. O.U.P. 1967, p.73.

9. Tomlinson Report: Summary, p.98.

10. Department of the Interior: Transkei. Statistical Labour Report, 1967.

11. Transkei Government: Report of the Department of Education. 1965 and 1966.

CHAPTER 6 (Contd.)

12. Tomlinson Report: Summary, p.98.

13. G.C.K. Fölscher: The Economic and Fiscal Relationships of the Transkei vis-a-vis the rest of the Republic as determinants of its Economic Development. The S.A.J.E. September, 1967, p.209.

14. Ibid. p.209.

15. Jagdish Bhagwati: The Economics of Underdeveloped Countries. London. World University Library, p. 10. (estimated as 381 U.S. Dollars).

16. Transkei: Estimates of the Expenditure to be defrayed from the Transkeian Revenue Fund during the Year ending 31 March, 1969. (T.G. 1 — 1968).

17. Tomlinson Report: Full Report, Chapter 34 p.82.

18. Transkei: Budget Speech, 1968: The Honourable, The Chief Minister. p.27.

CHAPTER 8

1. Transkei: Department of Agriculture and Forestry: Annual Report 1964 - 1965.

CHAPTER 9

1. At present 1% are employed as unskilled labour - vide Statistical Labour Report, 1967 - but Table 6 shows that 6.8% of the females were economically active in 1960. With added work opportunities becoming available, especially with increased educational standards, 10% seems a reasonable suggestion. The figure for the Republic of South Africa was 15.1% in 1960 - vide Table 6.

2. W.H. van der Merwe: Development of Forestry in the Transkei. Ulimo Nemfuyo e- Transkei, March, 1966. p.32.

3. Ibid. p.32.

4. Transkei: Department of Agriculture and Forestry: Annual Report 1966 - 1967. p.51.

5. G.M.E. Leistner and P. Smit: The Transkei Marches Forward: Africa Institute Bulletin, August, 1966. p.182.

6. G.M.E. Leistner and P. Smit: The Transkei Marches Forward: Africa Institute Bulletin, August, 1966. p.170.

7. See Table 3.

CHAPTER 10

1. Pierre Gourou and E.D. Laborde: The Tropical World. New York. Wiley. Fourth Edition. Chapter 1.

2. Agricultural Economic Map of South Africa, 1965. Government Printer, Pretoria, 1967.

3. Statistical Year Book 1966. Bureau of Statistics, Pretoria. Chapter J. p.22.

   And:

   G.C.K. Fölscher: The Economic and Fiscal Relationships of the Transkei vis-a-vis the rest of the Republic as determinants of its Economic Development. The S.A.J.E. September, 1967, p.207.

4. Fölscher: Ibid. p.207.

5. Ibid. p.209.

6. Statistical Year Book 1966. Bureau of Statistics, Pretoria. pp. A-8 and W-4.

7. See Table 3.

8. Population Census, 1960, Vol. 1. R.P. 62/1963, Government Printer, Pretoria. p.9.

9. Kingsley Davis: World Urbanization and Economic Development, Table 1. - A paper delivered at Durban in July, 1968.

10. Statistical Year Book 1966. Bureau of Statistics, Pretoria. p.H-7.

11. According to officers in the Transkei Department of Agriculture and Forestry.

12. The Cape Argus: August 22, 1968, Cape Town, p.8.

13. Transkei Government: Report of the Department of Education 1966. p.1.

14. Walter Isard: Location and Space-Economy. Cambridge, Massachusetts: M.I.T. Press 1956. Chapter 8.

CHAPTER 11

1. A.O. Hirschman: The Strategy of Economic Development. Yale University Press. London (1962) p.199.

CHAPTER 12

1. G.L. Rutman: The Transkei: An Experiment in Economic Separation. S.A.J.E. March, 1968. p.29.

2. D. Hobart Houghton: Agricultural Development in the Reserves. S.A. Institute of Race Relations (Inc.) R.R. 181/1956. p.6.

3. Ibid. p.8.

4. Dick Wilson: A Quarter of Mankind. Penguin Books Ltd., Harmondsworth. A.967. p.153.

5. Eric Clayton: Agrarian Revolution in Kenya. Optima, December, 1967.

6. Transkei: Department of Agriculture and Forestry Annual Report 1966 - 1967. p.3.

7. Tomlinson Report: Summary, p.152.

CHAPTER 13

1. Lloyd Rodwin: Choosing Regions for Development. Regional Development and Planning: Edited by Friedmann and Alonso. M.I.T. Press 1964. pp. 50 - 51.

CHAPTER 14

1. Tomlinson Report: Full Report, Chapter 34 p.84.

2. W.A. Lewis: Development Planning, the Essentials of Economic Policy. New York. Harper and Row, Publishers. 1966. p.37.

3. Ibid. p.29.

CHAPTER 15

1. W.A. Lewis: Op. cit. p.98.

2. Ken Post: The New States of West Africa. Penguin African Library AP 14. Revised Edition 1968. pp. 146 - 147.

CHAPTER 16

1. W.A. Lewis: Op. cit. p.110.

2. Ibid. p.104.

3. Transkei: Estimates of the Expenditure etc. 1968 - 1969. Calculated from p.10.

4. W.A. Lewis: Op. cit. p.104.

5. Ibid. p.225.

6. Ibid. p.226.

7. Transkei Government: Report of the Department of Education 1966. pp. 28 and 19.

8. Ibid. p.20.

9. Ibid. p.20.

10. Calculated from Reports of the Department of Education 1964, 1965 and 1966.

11. Transkei Government: Report of the Department of Education 1966. p.20.

12. Ken Post: Op. cit. p.p. 155 - 156.

CHAPTER 17

1. Transkei Government: Annual Report of the Transkeian Public Service Commission 1967. p.7.

2. A.O. Hirschman: Op. cit. p.36.

3. Ibid. p.3.

4. Ibid. p.4.

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Report No. 2 - Industry Divisions: Coloureds and Asiatics.
Report No. 3 - Major Occupational Groups: Whites, Coloureds and Asiatics.
Report No. 5 - Industry Divisions and Major Occupational Groups: Bantu.
Report No. 7 - Level of Education: All races.
Report No. 8 - Diverse.

(C) THE TRANSKEI:

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Department of Roads and Public Works, Annual Reports.

Ulimo Nemfuyo e- Transkei - Official Journal of the Department of Agriculture and Forestry.

(b) Government of the Republic of South Africa:

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The Transkei.

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(D) ECONOMIC DEVELOPMENT:

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